AMIGA news

Fish TBAG - Any 10 \$14.95

Amiga News Special! Any 10 Fish or T.B.A.G. disks for only \$14.95. If you want to save \$\$\$ on Amiga PD disks, call or write for our FREE Amiga disk catalog which lists 1400+ disks! Lots of imports.

TO ORDER: Add \$3.50 shipping and \$3.50 if COD. We ship world-wide. No credit card surcharge.

Select disks - give us a call!

MGH Software

Wish Software

Wish Box 645

Bayfield, WI 54814

(715) 779-5600

954

Attention Amiga User Groups
You're one of our resources on what concerns Amiga users today. Your opinions mean a lot to us! If your group publishes a newsletter, please add us to your mailing list. Don't forget, selling Amiga News is a great way to earn extra money for your club.Call Mary or Pauline at (603) 924-9455 for details.

Vol.1 No 7

Sizzling Summer Issue!

AUGUST 1992



Part of the Main exhibit area at Wanuskewin Heritage Park, Canada.

Dances with ... Amiga

Star Trek's holodeck beams down to Wanuskewin.

by Mary Fraser

Amigas have been known to pop up in the most unusual places — training cadets at the Houston Police Academy, creating metamorphic aliens for the movies, teaching Chinese to students at the University of Utah. Now, a group of forward-thinking individuals have employed the Amiga to play a futuristic role in the re-creation of an ancient Native American culture outside Saskatoon, Canada.

Wanuskewin is a Cree word that many translate as "seeking peace of mind." The word describes the place and the purpose for thousands of people who have and will visit the Park. A product of extensive cooperation between Natives and non-Natives, the Park has earned its name. After a concerted effort on behalf of everyone involved, the multi-million dollar park still feels like the wilderness it commemorates, despite its state-of-the-art archaeology labs, climate-controlled storage vaults and innovative hands-on displays.

"The main exhibit area at Wanuskewin is a large space which visually re-creates an Indian encampment and the natural worlds these people have lived in for many thousands of years," says Rob Bryanton of Integrated Sounds. He should know. I.S. Integrated Sounds developed the "interactive automated presentation system" which controls Wanuskewin's main exhibit halls.

The I.S. Interaction System incorporates motion sensors, automated lighting, digital sound storage and multiple speaker channels into an innovative system capable of generating realistic environments which are completely responsive to the presence of visitors. Computer control for the installation is provided by a Commodore Amiga running ARexx, Geodesic Publications' AirLink, and the Blue Ribbon Sound Work Ltd.'s Bars & Pipes Professional.

Continued on page 15.

Me A4000

The Scoop on Commodore's Newest!

by Anon

I've been chomping at the bit to speak out and right now I just don't care about the non-disclosure agreement. We have been beta-testing the A4000 and another model which may be called the A1000 Classic, A800, or possibly some other name. Both are based on the AA chipset and should be able to hold their own against other machines on the market, but there are still a few areas where they are lacking.

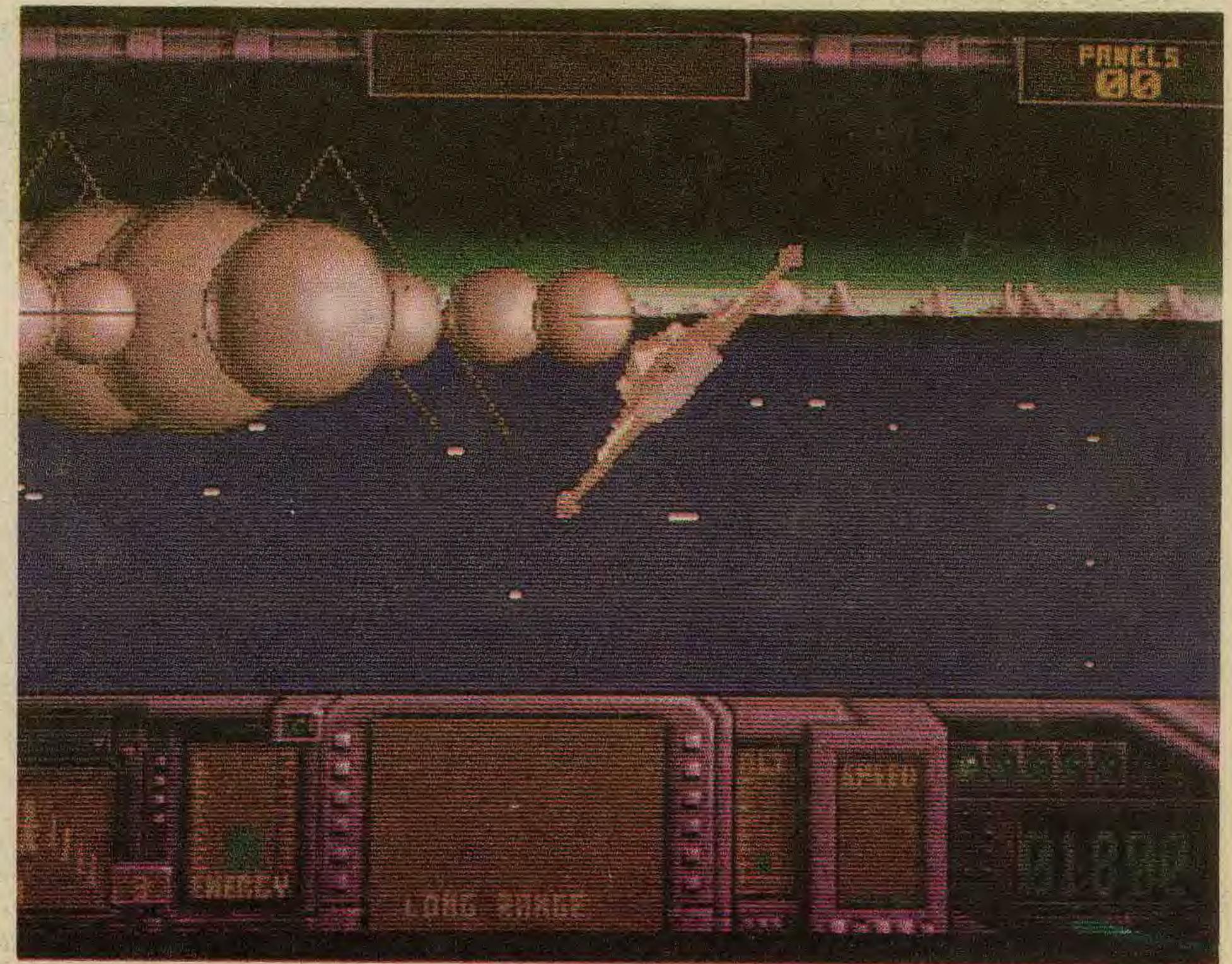
A3000 with an 040 on the motherboard, the AA chipset instead of the ECS, and beta 2.1 ROMS. Ours has 16Megabytes fast RAM and 4Megabyte chip, expandable to 64M and 16M respectively. ZIP RAM, like that in the A3000 is used, but there is a chance that production machines will go to SIMMS. Our machine has a 105M Quantum hard drive and a true full-speed high-density floppy. The expansion slots are Zorro III and appear to be identi-

cal to those on the A3000. I am not positive, but the cpu slot looks to be the same as the one found on the A3000.

The other machine is housed in pizza-box style case three inches high and fifteen inches wide and deep. It has a 16MHZ 030, the AA chipset, 2.1 ROMS, and sockets for up to 16M fast RAM and 4M chip RAM. It has the same floppy drive as the A4000, but the hard drive is only a 52M Quantum. There is a daughterboard with two Zorro III slots and one inline video slot, but it looks to be very cramped in there. The cpu slot is in the same orientation as that of the A3000 and A4000, but there is not much clearance. It is a very nice compact package and manages to look "sexier" than the A3000/ A4000.

Both machines sport the same I/O ports, starting with the same ports found

Continued on page 16.



Aquaventura from Psygnosis combines Flight Simulator and The Juggler graphics to achieve unique graphical action. See page sixteen for details.

PER PIERS BUILTERS

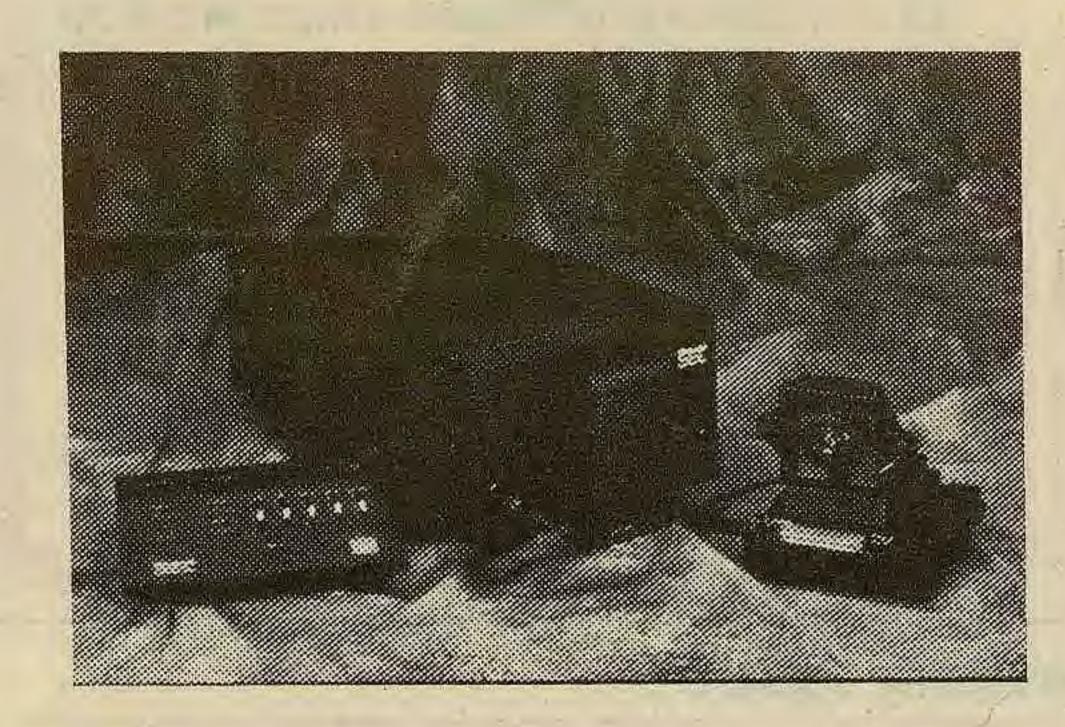


\$3495

ColorPageTM Thermal Printers

The ColorPage and ColorPage Plus thermal printers feature the latest in printing technology:

- 300-dpi resolution
- 16.7 million colors
- Preference driver
- Output to paper, overhead transparency or T-shirt transfer material
- Print images up to 8.5" x 11" (ColorPage) or 11" x 17" (ColorPage Plus)



\$1895

FreezeFrameTM Film Recorder

The Polaroid FreezeFrame film recorder lets you capture any image from your Amiga on film, at a remarkably low price:

- 23-pin cables (supplied) use standard Amiga RGB output and pass it through to your 1084 (or compatible) monitor
- Use a 24-bit graphic adaptor like Impulse's FireCracker 24 or M.A.S.T.'s ColorBurst for incredible results
- Support for NTSC output from your Toaster or DCTV
- In NTSC mode, manipulate and preview saturation, tint, brightness and contrast taking a picture
- Includes 35mm and Polaroid AutoFilm camera back
- Optional 35mm, cinema format, pin-registered back available for animation work

Phovos 300C Color Scanner

provides true color fidelity for desktop publishing separations and other graphic applications:

- Single-pass scan for red, green, and blue ensures accurate registration and high-quality color
- Scan A4 size documents in just
- Compact size makes it an ideal desktop scanner
- The perfect solution for professionals in graphic arts, marketing, communications,

\$1295

A rugged, 24-bit color scanner that

- 30 seconds
- publishing and education

Dealer Inquiries Invited

2341 W. 205th St. Torrance, CA 90501 (213) 618-0274 Fax (213) 618-1982

It takes vision to select the peripherals that today's discerning computer users demand. We at Prime Option are the specialists in high-quality computer peripherals for Amiga computers. We supply cutting edge technology at affordable prices and offer complete service and support on all our products.

For more information on our full line of color printers, color and grayscale scanners, film recorders, and optical drives, call us today at (213) 618-0274.

Get all the magic out of your Amiga.

I have just returned from a users group meeting, where I was asked to help demonstrate CDTV and assist in a question and answer session. I was handed the June issue of Amiga News where an article on the front cover asked "IS THE AMIGA DOOMED?" Everyone knew my answer. Taking a deep breath, I stated," No, the Amiga is not dead."

"DOOMED" AMIGA

FEEDBACK

In your article, it asks Amigadom to go door-to-door, educating and persuading the American people. I have to agree that Commodore had not done their part in advertising. How can you advertise if sales are not in the future? You are right - it is up to each and every one of us to do our part and boost our pride and joy (Amiga).

Now is the part where I speak out and try to help you, Commodore and the Public in showing off the Amiga. I belong to a network of 100 vendors working in mili-

Continued on page 18.

Terry Kepner, Publisher

Graham Heywood, Editor-in-Chief Editoral Tel: (603) 924-9455

Terry Kepner, Editor Rob Liddil, Editor Mary Fraser, Editor Joe Rothman, Associate Editor Pamela Rothman, Associate Editor

Bob Liddil, Sales Manager Pauline Halvonik, Sales Assistant Advertising, Tel: (603) 924-9455

> Helen Waite Circulation Manager Circulation: Tel: (603) 924-9455

Harry Dermody Newsstand Distribution Manager

Amiga News is an independent newspaper not connected with Commodore Business Machines, Inc. Amiga News is published monthly, except for a combined July/August issue, by Portable Computing International Corporation, 145 Grove St. Ext., P.O. Box 51, Peterborough, NH 03458-0051, (603) 924-9455. Entire contents copyright 1992 by Portable Computing International Corporation, 145 Grove St. Ext., P.O. Box 51, Peterborough, NH 03458-0051, (603) 924-9455. No part of this publication may be reproduced without written permission from the publisher. Amiga News makes every effort to assure the accuracy of articles published, but Amiga News assumes no responsibility for damages due to errors or omissions.

Store/Club Sales: Please contact Helen Waite, Portable Computing International Corporation, 145 Grove St. Ext, P.O. Box 51, Peterborough, NH 03458-0051, (603) 924-9455, for information regarding shipment of Amiga News for resale.

Subscription Service: All subscription correspondence should be addressed to Helen Waite, Amiga News, P.C.I.C., 145 Grove St. Ext., P.O. Box 51, Peterborough, NH 03458-0051. U.S subscription rates; \$12.40 one year Bulk Rate; \$19.97 one year First Class Mail.

CompuServe eases Message handling for Netware Users

CompuServe members using Novell's Message Handling Service (MHS) are now finding it easier to exchange electronic mail with customers, clients and trading partners. CompuServe's global message service now offers gateways to the Internet, AT&T Mail, and AT&T Easylink and the ability to send messages to facsimile machines.

Since October 1991, CompuServe has provided its mail hub for members using Novell's Netware MHS as their transport agent. The CompuServe Mail Hub gives local area networks (LAN) and stand-alone personal computer users the ability to exchange electronic mail messages cost effectively, conveniently, and reliably with other NetWare MHS users as well as with more than 992,000 CompuServe members worldwide.

According to Dave Bezaire, Compu-Serve's manager of electronic messaging products, users will eventually have access to additional CompuServe Mail options as enhancements to the mail hub continue. "CompuServe members tell us that

convenient, reliable connections between their workgroups and access to people in other companies are two very important factors these days. We are excited to provide a simple-to-use service which can connect individuals with people of Compu-Serve, AT&T Mail, AT&T Easylink, the Internet, and anyone with a fax machine."

Requirements to use the CompuServe Mail Hub include NetWare MHS v1.5 and the add-on Netware MHS v1.5C, a membership to the CompuServe Information Service, a modem, telephone and the CompuServe Information Manager software or any other terminal emulation soft-

NetWare MHS v1.5C can be downloaded from CompuServe for \$30.00 per copy. CompuServe Mail Hub rates range from \$11.00 to \$27.50 per hour for modem speeds of 300 to 9600 bits per second. A CompuServe Membership Kit can be obtained by calling 800/457-6245.

Contact: CompuServe, 5000 Arlington Centre Blvd., Columbus, OH 43220. Tel. (800) 457-MAIL.

SILO:P. Office

Keep your valuable equipment where it belongs — in your office. As the level of computer sales increases, and the problem of protecting and keeping track of equipment grows, Security Tracking of Office Property (S.T.O.P.) has developed a system which effectively deters theft and manages property inventory.

HOW IT WORKS

A unique, scannable bar-coded ID number (on a permanent plate) is assigned and affixed to each machine. A description of the equipment, brand, model, serial number, user name, and location are entered into the database. A warning sticker is also applied to the machine. Underneath the plate, an indelible marking (tattoo) indicating that the computer has been stolen is inscribed:

STOLEN PROPERTY 50 1-800-488-STOP

even if the plate is removed (it takes 400 lbs. of force!), the tattoo reveals that machine has been stolen.

When a machine has been reported missing, Interpol, the FBI, and resellers are notified. S.T.O.P. has marked over 100,000 machines to date. Only 21 of 290

文章和"大人"中国"特别"等人有事"特别"

reported missing or misplaced machines have yet to be recovered.

S.T.O.P. and industry security experts acknowledge that most theft is committed by professional thieves for resale purposes. The permanent marking system renders equipment undesirable for the professional thief because it requires too much effort to return to sellable condition and risks more conspicuous evidence of tampering.

TRACKING YOUR ASSETS

Recent S.T.O.P. clients have been attracted by the fact that each machine is given a unique bar-code, which can be used for computerized tracking of assets. By using a portable scanner (which is offered for resale to clients), the company can scan most of the relevant information required for inventory collection.

Following data collection, S.T.O.P. downloads the information into a PC and prepares customized, Paradox-based reports to the client.

Contact: Security Tracking of Office Property (S.T.O.P.), 56 Ocean Drive East, Stamford, CT 06902. (800) 488-STOP, (203) 359-9361, fax (203) 359-4591.

是是一个一个一个一个

trained a training to the

We Have Over 2,200 Disks! EST. 1983

30 Track Software

P.O. BOX 309 - Dept. 55 - Oceanside, NY 11572

The 1st Public Domain Company for the Amiga!

PCX-1 - CLIPART* 9 Disks compressed! Equal to over 20 disks!

For Pagestream or can be converted with Art Dept. for all other Apps. Hundreds of Images, great Quality. All images are grouped by categories according to their type. This is a Shareware collection That only we have!

PCX-1 \$34.95

GAMES-1 (5 Disks)

- 3D Tic Tac Toe, Tiles(Shanghai), Pacman 87, Battleship, Descender
- Monopoly, Asteroids, Puzzle, Deluxe Burger, Mercenary
- Escape from Jovi, Space Invaders, Missile Command, Iff2Pcs-puzzle, Four in a Row · BattleMech, Bullrun, SuperBreakout,
- Full documentation \$17 Egyptian Run • Hack

EPS CLIP ART*

of EPS clip art. This collection of fine Images has taken many months to do. They come from Package #3 - 5 Disks Mod Disks 12-15,71 different computer platforms. The clipart is arranged by subject matter, too many to list here. This is the largest Shareware EPS clip art | Players. Each player comes on its own disk collection for the Amiga. With LZ.

SPECIAL PRICE \$29.99

300 Adobe Type 1 Fonts*

10 months in the making, this comprehensive set works flawlessly on your Amiga, fullfilling all your font needs from A to Z.

Special Price: \$69.99 Largest Set Anywhere!

*Shareware Exclusively Licensed to 80 Track Software

XX-1 (6 Disks)

X-RATED DISKS WITH PIC'S, ANIMATIONS & SLIDE SHOWS Horny - Great Slide Show 2 Disks Manny's Demo #2 - Good music & Pic's Samantha Fox #2- Wow what a dish! Bodean's Nudes #10 - XXXXX Gads! Stag#1 - Fantastic DigiMovies, Unbelievable \$20

Must be over 18 to order!

MUSIC MODS

8 Disks Compressed with Hundreds of pieces | Package #1 - 5 Disks Mod Disks 1-5 Package #2 - 5 Disks Mod Disks 6-10 With any one of the 3 pkgs, you also get your choice of Module Master or Intuitracker Module with documentation and more modules to play. A total of 6 disks in each Pkg. \$20Ea

XX-2 (6 Disks) X-RATED DISKS WITH PIC'S, ANIMATIONS & SLIDE SHOWS

Stag#2 - Fantastic DigiMovies, Unbelievable Stag#3 - Fantastic DigiMovies, Unbelievable Beauties - Slide Show from Europe Orgasmatron - Try your luck, Joystick req. Bodytalk - 2 disks of Fabulous Pic's

Must be over 18 to order!

CLIP ART-1*

5 Disks Compressed with Hundreds of pieces of clip art. Many different subject areas to choose from. You'll be amazed at the quality of the artwork. These disks also come with LZ one of the most powerful and easy to use tools for compression & decompression.

LZ has allowed us to put 10 disks worth clip art on only 5 disks. All clip art is IFF Bit Map - a mix of Hi-Res & standard IFF types.

\$20

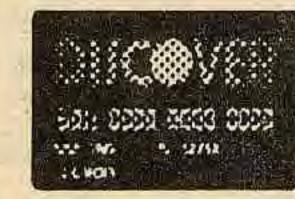
Call or Write for our 37 page Catalog!

> 0468 Printer Drivers* Over 80 Different Printer Drivers GD1 PacMania A bunch of Pacman type Games 708/09/10 Star Trek This is the Best One! 3 Disks 1809 MegaBall II A Fantastic Arkanoid Clone 1998 Module Master One of the Best Sound Players 0967 Dr. Awsome's Music Great Music & Graphics 1502 At The Movies Funny Furry Animation over 2 mins. 1936 Aerotoons 2 Great Eric Schwartz Anims. 1085 Modem Madness Everything you need to Telecom. 1999 BBBBS v3.7 A New Version of a BBS FF00 Aquarium Thru 670 Complete catalog of Fred Fish 1759 Paragon IntroMaster Make your own Cool Intros! 1729 FishTank Simulator Create your own Fishtank with Fish 0831 Pagestream Fonts 6 additional fonts to use with Pagestream This is just a sample of our 2,200 disks!

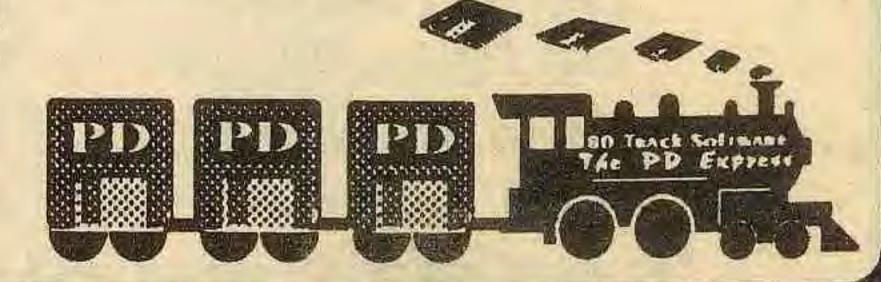
All disks are \$4.00 each With this AD buy 5 get 1 Disk FREE!







Shipping is \$3.00 - ALL Fred Fish (1-670) Cost \$1.75 Ea. ORDERS: (516)678-9631 FAX (516)763-4745



Ergonomic Keyboard Drawers from MicroComputer Accessories

Two of the most common keyboard problems are where to put the keyboard on a crowded work surface, and how to position it to maximize ease of use and comfort. Responding to this dilemma, Micro-Computer Accessories, Inc. has introduced two new adjustable keyboard drawers with built-in padded wrist rests — one for desktop use, and one for underdesk use. Both drawers allow users to select a comfortable keying height that best suits their individual preferences and stature, and change keyboard heights instantly, even while keying.

Both drawers include a built-in padded wrist rest that helps support the wrists for greater comfort. When opened the wrist rest provides a convenient storage compartment for small office items such as pencils, pens and paper clips. Mouse users can attach an optional Mouse Tray for right- or left-handed use.

PRODUCT INFORMATION

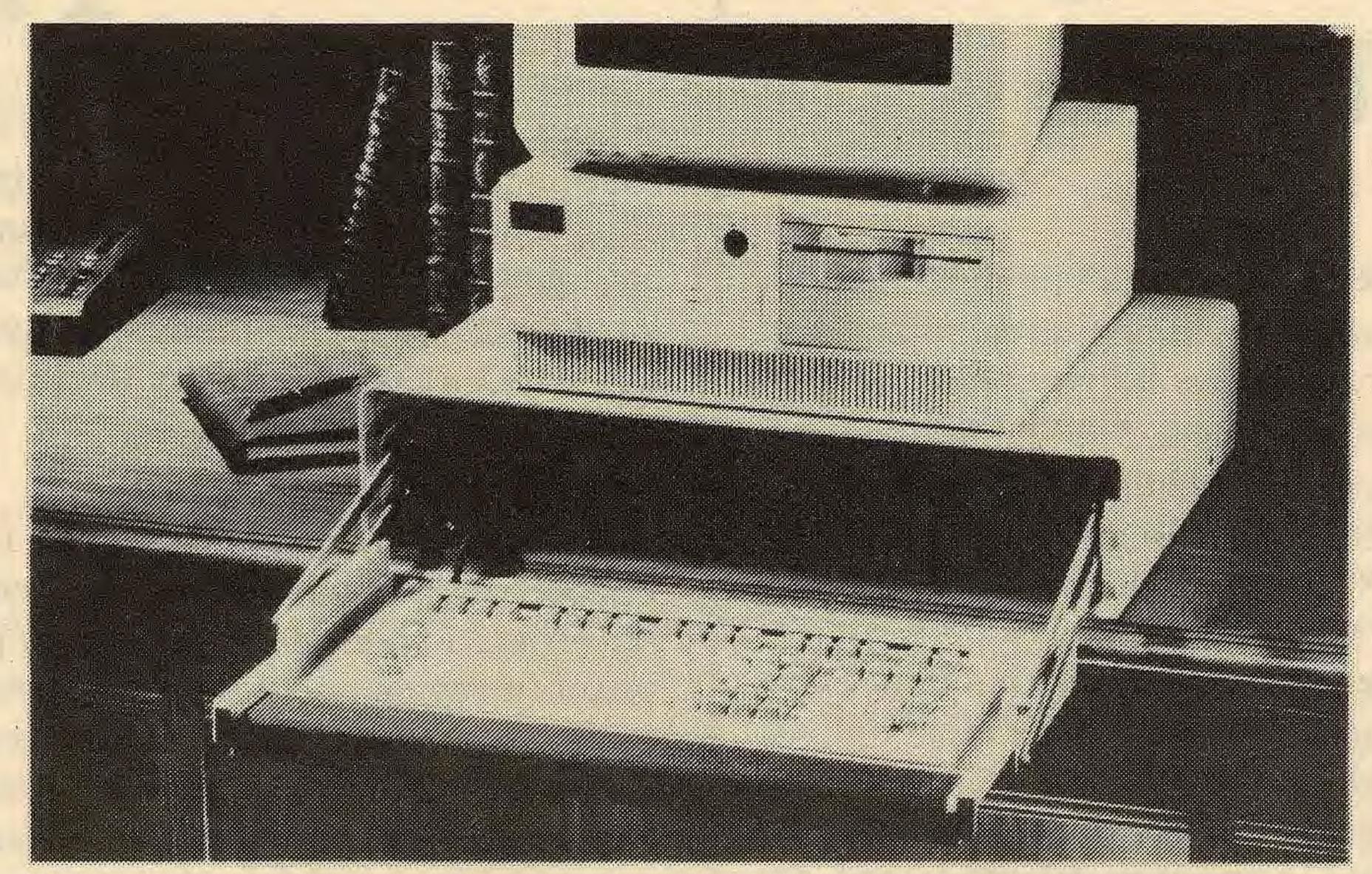
Adjustable Keyboard Drawer - desktop (model # 634) - \$99.95

Mouse Tray - desktop (model # 6295) - \$19.95

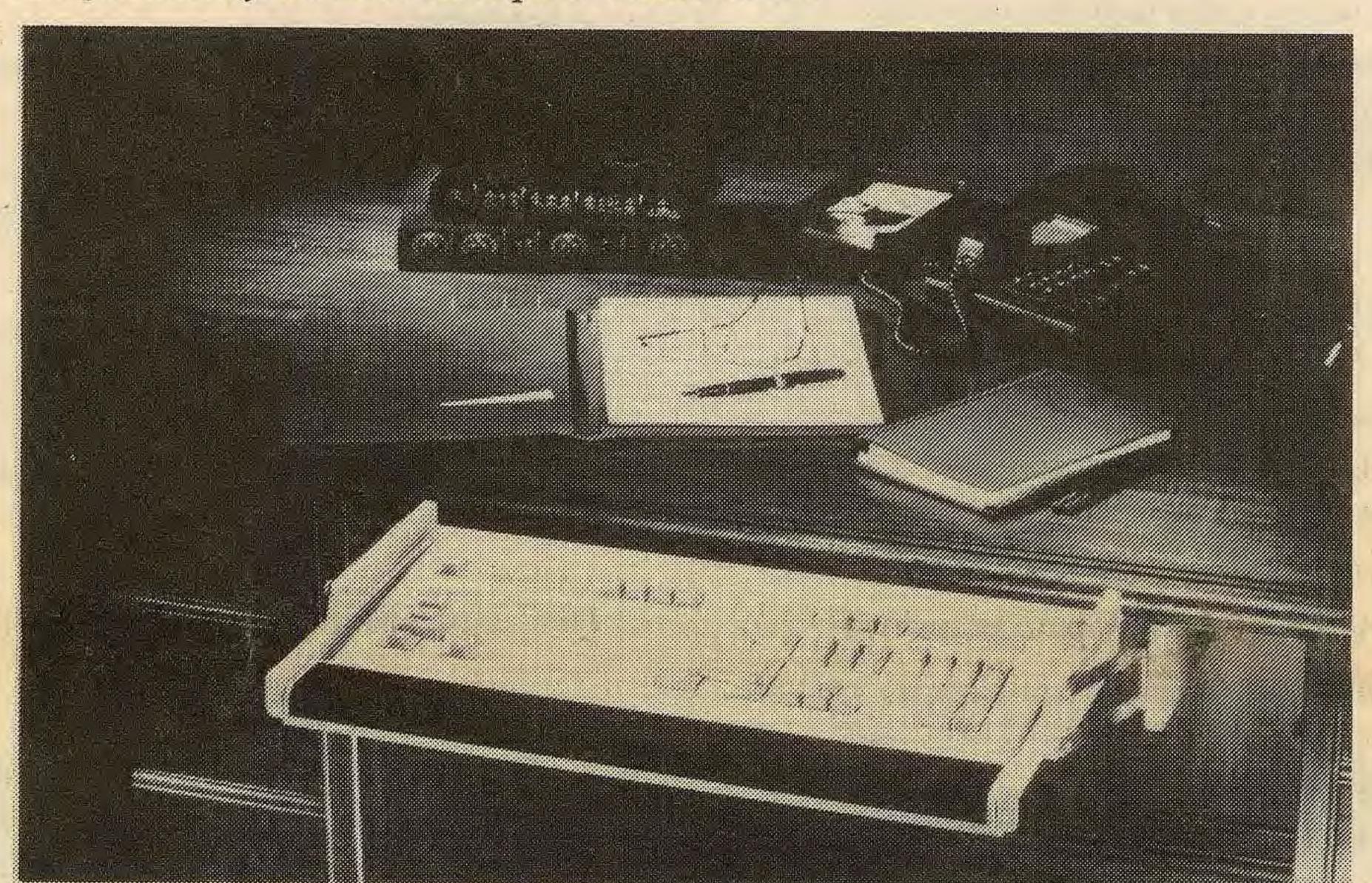
Adjustable Keyboard Drawer - underdesk (model # 635) - \$79.95.

Underdesk Mouse Tray (model # 601) - \$31.95.

MicroComputer Associates, 5405 Jandy Place, P.O. Box 66911, Los Angeles, CA 90066. (213) 301-9400, fax (213)306-8379.



The Adjustable Keyboard Drawer desktop version with padded wrist rest/storage compartment from MicroComputer Accessories.



The Adjustable Keyboard Drawer - underdesk version.

Point and Click You will be Astonished

You bought your Amiga for obvious reasons, now is your chance to obtain demos that dealers only dream of.

Select from fantastic animations by such greats as

Dr. Gandolf and Eric Schwartz.

Juggler, Batman, Juggette, Walker, Spigot, Zues,
NewTek Demo Reels, Killer Demo, Only-Amiga,
and Aerotoons are only a few from over 100 Titles.
If that isn't enough, then choose from Slideshows,
Music/Digitized Sounds and dozens of Games.

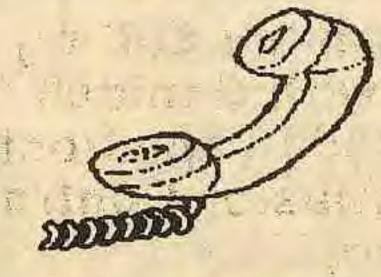
\$2.25 Per PD/Shareware Disk

Call or write for a free Catalog.

Lets help Commodore open the eyes of the weary.

"Seeing is Believing"

Demo Heaven 4457 Dove Dr. Beale, Ca. 95903 (916) 788-0793



"AmigaDos 2.0 Tested and Virus Free"

AUDIO GALLERY

Talking Picture Dictionaries



Korean * English * Russian * Chinese French * German * Spanish * Japanese

- * All words and phrases digitized voices of native speakers!
 * 25-30 Topics such as Weather, Numbers, Food, Geography, etc!
- * Includes On-line Dictionary, Pronunciation Guide and Chapter Quizzes!
- * Handy reference for the student, traveler, businessman!
- * Seven or Eight-disk set includes comprehensive grammar manual!
- * Five-Six megabytes digitized sound: 700-800 digitized words, phrases!

FairBrothers, Inc.

Romance Languages: \$89.95 Oriental Languages: \$129.95

5054 S. 22nd St. Arlington, VA 22206 Tel (703) 820-1954 Fax (703 820-4779

Please specify language when ordering. Free brochure available. Send \$5 for Demo Disk (rebated on regular purchase). To purchase, send check or money order. All orders shipped UPS Ground. Add \$5 for COD or UPS 2nd Day Air. Canadian orders add 20% if paying in Cndn Dollars.

FCC Video Release

The FCC has produced a 30-minute video entitled "The FCC, Personal Computers and the Law." The video is designed to provide manufacturers, vendors, dealers and resellers with a basic knowledge of Part 15 compliance of FCC rules and regulations concerning computers. Users can obtain a better understanding of the industry and why there is so much difference between manufacturers.

The video includes a panel discussion which includes: key personnel from the FCC, U.S. Customs, IBM, Computer Shopper magazine, CBEMA, Computer Reseller magazine, KAO distributions, and PC magazine.

Panelists on the video discuss basic questions and concerns the dealers and resellers have, including the expected increase of interference potential as a result of the continued increase in sales of personal computers.

To obtain a copy of "The FCC, Personal Computers and the Law," please write Marlene Jackson, 1017 Federal Building, 31 Hopkins Plaza, Baltimore, MD 21201

PROMPTOR SERVICE

If you're plagued by computer bugs, I know what it could mean You have to patch the tiny holes in your computer screen.

If my memory is correct,
In a program I once saw
you can command some bugs to leave
and boot some out the door.

You really can't be soft ware these bugs are the main concern If they have random access You have to remain stern.

Don't ever curs or shout
It impels the bugs to byte
Just get down to basics
You must protect your write!

While you load your weapon, display compatibility show them the error of their ways While sealing off their entry

When you've got them all locked in The progam should go well,
Just drive them all together
And delete them all to hell.

from Kara

Kara Computer Graphics has expanded the variety of fonts available to Video Toaster users with their release of two two font packages, Toaster Fonts 3 & 4. These two font packages offer anti-aliased 16 million color ChromaFonts and were designed with input from registered users. These fonts were designed in order to address certain current limitations that the Toaster has with ChromaFonts and to answer the highly requested need for scripts and cursive styles. These new packages also include an option to install the compressed fonts with the included Hard Drive installation program and use them in a compressed state, thereby decreasing the hard drive storage requirements from 40% to 50%.

Toaster Fonts # 3 has shiny Caps and small Caps fonts with Outline, Drop and

Cast shadows. Fonts styles include a chiseled Gothic serif in Gold or Metal, a Roman face with a shiny golf extrusion and a beveled Gothic italic. These four fonts come in two sizes each and include the full character set of CAPS, Small Caps, numerals and special characters. Six disk set.

Toaster Fonts # 4 consists of four shiny script and cursive fonts. Styles are a chiseled Roman script in Gold and Metal, a casual brushed script and a calligraphic face. They also come in two sizes and include the full character set. Five disk set.

Each package has a suggested retail prices of \$99.95.

Kara Computer Graphics, 2554 Lincoln Boulevard, Suite 1010, Marina Del Ray, CA 90921. (310) 578-9177.

Migraph Now Has OCR Capability

Migraph, Inc., is now shipping release 1.1 of Migraph OCR, an Intelligent Optical Character Recognition (IOCR) application for Amiga computers.

Most noticeable in the upgrade is the revised interface which has the Workbench 2.0 look and feel, regardless of whether the use is running 2.0 or 1.3. Users also have the option of having the ASCII file sent directly to the text editor of their choice.

Migraph OCR also includes the following features:

Directly supports the Migraph, Alfdata and Golden Image Hand Scanners.

Loads monochrome IFF and TIFF files scanned with any scanner.

Trainable for special characters and languages accessible from the keyboard.

Define text and graphics area; save out text as ASCII files and save graphics in TIFF or IFF format.

Includes four linguistic databases: English, French, German and Dutch.

Allows the user to create libraries of trained characters for documents of the same type and feel.

Workbench 2.0 look and feel.

NTSC and PAL compatible.

Migraph OCR will run on any Amiga system with 2.5 MB RAM and a hard disk drive. Systems with flatbed scanners requires 4.5 MB.

Registered owners of the initial release of Migraph OCR will automatically receive a free update to version 1.1. Anyone who has a version earlier than 1.1 may return their master disk to Migraph to receive a free update.

Migraph OCR is also available through normal distribution channels, as well as directly from Migraph. Suggested retail price is \$299.00.

Contact: Migraph, Inc., 32700 Pacific Highway S., Suite 12, Federal Way, WA 98003. (206) 838-4677, fax (206) 838-4702.

New Toaster Fonts | Commodore Slashes Amiga Prices!

Quick—run to your local Amiga dealer! You may find a great deal on an Amiga. Effective June 1, 1992, CBM reduced the suggested retail prices on selected Amiga models by up to 25%. The company also introduced several new system configurations, as well as the new A2386SX Bridgeboard, which enables the Amiga 2000 and 3000 series computers to run compatible MS-DOS software.

Commodore began this "price-break" in March, with the announcement of special promotional prices to its dealers. The success of this marketing effort led to the company's decision to permanently adopt the lower prices, establishing new dealer and Manufacturers Suggested Retail Prices (MSRP). One example of the substantial price reduction is the Amiga 2000 with 1084S color monitor, previously available at an MSRP of \$1986. The new suggested MSRP is \$1539, representing a 23% reduction.

The pricing moves are a part of Commodore's new marketing campaign, parts of which we discussed briefly last month. This section of the campaign is focused on the professional multimedia user involved in videographics, dynamic presentations, interactive training or point-of-information kiosks.

One new system configuration specifically aimed at the video professional is an Amiga 2000-based system with a 100MB hard drive, Motorola 68030 processor, 5MB of RAM and a 1084S monitor with a package MSRP of \$2699. In addition, the user can purchase the same system with an A3070 tape drive allowing for magnetic tape storage of 150MB of information at an MSRP of \$3159.

LIMITED TIME OFFER

Two additional configurations available through September 30,1992 are an Amiga 3000-25/50 with a 50MB hard drive, 2 MB of RAM and the new 20 MHz A2386SX Bridgeboard for an MSRP of \$3399, and an Amiga 3000T-25/200 multimedia workstation with a 200MB hard drive, 5MB of RAM and a 1950 or 1960

VGA color monitor for an MSRP of \$4499. Commodore Director of Business Marketing David Archambault stated, "The A3000-25/50 with the new Bridgeboard is targeted specifically at the multimedia professional who requires the video, audio and animation capabilities of the Amiga, as well as the ability to communicate with an MS-DOS environment. Also, the A3000T-25/50 is ideal for the multimedia applications developer who requires lots of expandability and processing ability at an affordable price."

Commodore's 386SX bridgeboard gives an Amiga MS-DOS compatibility by allowing PC application software to run within a window under AmigaDOS. MS-DOS files can be transferred back and forth between Amiga disks and MS-DOS disks, giving users the capabilities of an Amiga and MS-DOS compatibility in one computer for one low price. The new 386SX bridgeboard is accompanied by MS-DOS 5.0 software and can be used with all Amiga 2000 and 3000 series computers. It has a processor clock speed of 20MHz and will support a maximum of two floppy drives while sharing a hard drive with the Amiga side.

Contact: Commodore Business Machines, Inc., 1200 Wilson Drive, West Chester, PA 19380. Tel. (215) 431-9100, fax (215)431-9156.

ARCXX

Explained

ARexx got you confused? Can't understand the manual? Check out the Fast Guide to ARexx from Vidia. Written by David Dean, this book describes each ARexx command, covering syntax, keywords and options using many examples to illustrate his points. Also included are general notes on using ARexx, operators, and standard I/O. Suggested retail price is \$8.95.

Vidia, P.O. Box 1180, Manhattan Beach, CA 90266. (310) 379-7139.

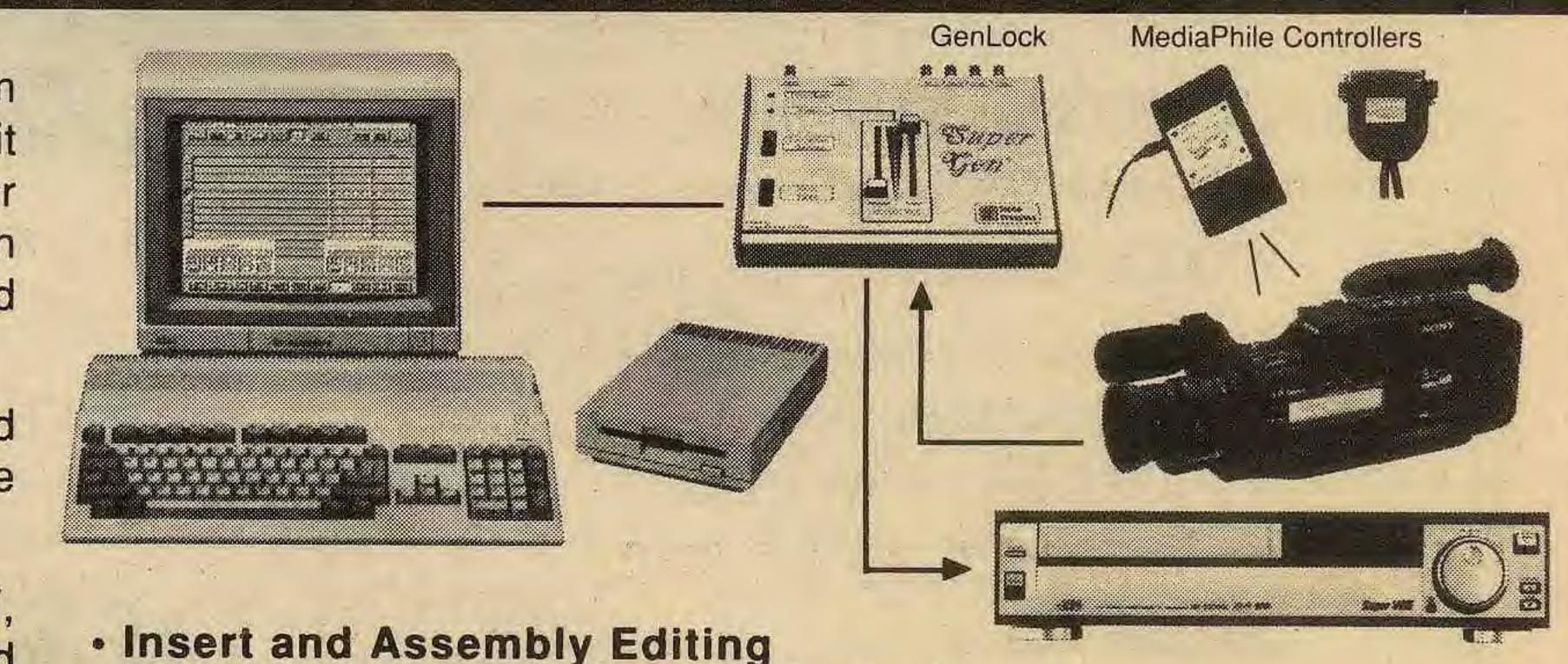
Complete Video Editing Packages From \$395.

The MediaPhile® Video Production System automatically transfers chosen video segments from your original tape to a new master production tape. The system includes everything you need to edit and title video tapes with any infrared controlled VHS, SVHS, 8mm, Hi-8mm or Beta video deck or camcorder. Just plug into any Sony, Canon or Ricoh "remote" control port or install your own MediaPhile port. Our graphical point and click edit decision list manager makes logging in and recording tapes easy.

Videographers can record from several video decks, compact and laser disk players, and DAT and audio cassette decks. Record animations and titles from edit list entries or from within your favorite program. Control switchers and the Toaster for A-B roll and special effects.

MediaPhile controllers work with AmigaVision, CanDo, The Director, Showmaker, DeluxePaint IV, Videoscape 3D, Sculpt Animate 4D and other programs for presentation, interactive training and animation recording. BASIC and C-Language programmers can also control audio and video equipment with MediaPhile controllers.

Send for our free catalog or give us a call to discuss your needs.



· Title Overlays with Genlock Control

 SMPTE Time Code Tape Positioning · A/B-Roll with Toaster Control

Animation Recording

Telephone: (603) 898-3545

Facsimile: (603) 898-3606

Notes from the Nets

Rumor has it...

By Times Roman

Beginning this month, Notes from the Nets will be "simulcast" in both the AmigaNetwork's Amiable News and in Amiga News. Local readers please bear with me if I rehash items I've covered before for the benefit of those who might not be familiar with news items covered in previous articles, and Amiga News readers please don't hold it against me if I refer a few times to "previous articles" that have never appeared in Amiga News.

Although I attempt to find information from the most reliable sources I can find, even reliable sources can sometimes be wrong. This column contains news, rumors, and other items of interest gathered from a number of computer networks where large numbers of Amiga users congregate. Unless it is indicated that an item is excerpted from an official press release, don't accept anything you read here as absolute truth, but instead as a suggestion of what might be happening. Don't base any major decisions on it.

COMMODORE

A while back, Commodore mentioned that CDTV would eventually support MPEG compression (a technology that promises to allow extreme compression of full-motion video so that relatively slow devices like CD-ROMs would be able to load it in fast enough for playback at a high frame rate). Although there's no real news from CBM on the progress (if any) in bringing this technology to the Amiga line, it looks as if their job might have just been made easier by the release of the first generic MPEG decoder chip. C-Cube MicroSystems an-

nounced in June the availability of the CL450, available in mass quantities for about \$50 each. The chip will decode MPEG data at high speeds and output it as RGB or YUV data. It is designed for easy interface with 68000-series processors, and C-Cube has indicated a willingness to cooperate in designing custom versions of the chip for specialized purposes. CD-I players have already been demonstrated making use of this technology, so CDTV had better come up with something similar in the near future. CDXL (the HAM mode 1/4 screen motion video technique used in some current CDTV titles) is nice, but won't compare very well with multi-million color full-screen displays. MPEG would also be an excellent addition to the rumored upcoming new Amigas, especially at the high end; the Amiga is supposed to be a multimedia powerhouse, and MPEG would certainly go a long way toward strengthening that claim.

Expect to see the current CDTV unit replaced with a cost-reduced CDTV 2000 unit (with more RAM and 2.0 ROMs) by Christmas at a much lower price than the current CDTV 1000. The rumored multimillion color board may or may not be a part of this system, but it would certainly make CDTV a much more attractive platform, especially at a lower price point than today's model.

Despite the fact that it can apparently be bought in a number of European countries, there seems to be a widespread belief (probably inspired by the recent *AmigaWorld* which made this claim) that the A570 CD-

ROM drive has been delayed once again. It's been suggested that some improvements will be made, including room for more expansion memory and provisions for attaching a SCSI drive. There is also said to be an A670 drive for the A600 in the works (it's already being advertised by some European dealers).

Word from European magazines is that the Amiga 500 line has been discontinued there and replaced with the A600. Although the 600's initial price is higher than expected and the machine itself has met with quite a bit of criticism from the press, some sources say that it does seem to be selling well. Now that the 500 is gone, Europeans should watch for the A600's price to dramatically drop.

Will we ever see the 600 in the US? Probably. Commodore doesn't sell enough machines outside of Europe to justify the expense of continued A500 production just to satisfy those non-European markets.

AA Chip Set

Speaking of new Amigas: rumors continue to fly about something called the "AA" chip set and a number of new Amigas with names that could be any (or none) of the following: A1000+, A2000+, A2200, A3000+, and A4000. Commodore itself has dropped some very unsubtle hints that we should expect to see some major new Amiga technology this year, and whisperings from magazines and networks around the world seem to support this story. Without going into extreme detail, here's a

hypothetical description of what we might see over the next year or so, based on rumors and tidbits gleaned over the past few months from sources just about everywhere.

Late Summer, '92 — Commodore announces the release of the 2.1 OS and the discontinuation of the Amiga 2000 series and the 16 MHz A3000 (they're already offering some heavy discounts on A2000 packages, almost as if to clear out excess inventory. . .). The 2000 will be replaced by a new mid-level machine called the A1000+, A2000+, or A2200. This machine will probably be based on a 68020 or 68EC030 (the "economy" 68030 without memory management unit... won't make much of a difference unless you're doing intense software development or trying to run UNIX) and equipped with the fabled 'AA' chip set (see below). This machine will probably sell in the \$1000-\$1500 price range and come in an A3000style case. The 3000 itself might also be upgraded to use the chip set.

Winter, 1992 or early 1993 — The Amiga 4000 arrives, shipping with a 25 MHz 68040 (33 and 40 MHz models to follow?), the 2.1 operating system, and the AA chip set. By this time the development of the 3.0 operating system, with features like device independent graphics and sound, will be just about ready to ship. An early, not-quite-finished version of it might even come with the 4000, like 2.0 did with the 3000.

Just what is this AA chip set, anyway? Well, no one can say for sure just yet, but here are the specs that have been passed around on the networks. The AA chip set will be fully 32 bits wide and run at a higher clock speed than the current chips. They will support two to eight megabytes of Chip RAM. The display will include all the standard Amiga modes, but with a larger palette of 16.8 million colors (versus 4096 in current machines). New modes will include 8-bit (256-color) modes and a HAM-like 256,000-color mode; both of these will be available at greater resolutions than current HAM techniques can handle. There will probably be some new, higher resolution modes, and either will be able to output both interlaced and noninterlaced displays directly from the chips, or there will be built-in deinterlacing circuitry on all the new machines.

As for sound, it's almost a sure thing that Paula or its successor will be either replaced or supplemented by a DSP (Digital Signal Processor) to provide real-time, high quality sound manipulation capabilities. In fact, a well-known publication for electrical engineers reported some months ago that Commodore would be using an AT&T floating-point DSP chip in some future machine). Sound output will be 16-bit with multiple voices. It would be very



Virtual Reality Laboratories, Inc. 2341 GANADOR COURT. SAN LUIS OBISPO. CA 93401 · (805) 545-8515

useful for the Amiga's Multimedia market if a simple sound digitizer as well as the above-mentioned MPEG compression were included on each machine.

Although much less substantiated than the rumors of the AA chip set, there are also stories floating around of an upgrade to the current 16-bit chips to allow some increase in capability on existing machines without having to buy a new CPU. A likely enhancement would be improved sound and a larger palette (probably 24-bit like on the AA chips) and perhaps a 256-color display at lower resolutions. This would allow low-end machines like the 600, as well as older models that get upgraded with this chip set, to compete better against low-end SuperVGA-equipped clones. It will also allow for easier porting of 256color VGA games and applications to the Amiga.

Along with the stories of these new Amigas come hints that Commodore may begin to make some effort to disassociate its name from the Amiga line in the US, possibly by doing something as drastic as spinning off a new wholly-owned subsidiary to handle Amiga technology. If this happens, it's quite possible that CBM will try to bring back the 64 in the form of a very inexpensive (try under \$50) game console by scrounging up some of the best of thousands of near-abandoned games, putting them onto cartridge, and selling them cheaply. Such a machine could probably sell for slightly less than the price of just a cartridge for the better 16-bit game systems, and would compete rather well in terms of performance and price against the 8-bit Nintendo and Sega machines. Since a C64-style machine probably costs (literally) about \$5 to make, CBM could really rake in some cash on something like this. Then, perhaps, when a large number of these machines get into circulation, start a new direct-mail promotion: "Announcing the Amiga 600 Power Up Program! Save \$100 on the purchase of an Amiga 600 or 600HD just by bringing the cover of your C64GameMachine manual to your local authorized Amiga dealer!"....

As mentioned above, the 2000 series is currently (June) undergoing some heavy discounting. For instance, the 2500, renamed the 2000HDA, is currently priced at \$2000 sans monitor. The \$500 rebate on 25 MHz A3000 machines also appears to still be in effect, although the heavy advertising for it in Amiga magazines has ended.

Commodore has announced that its new ToolMaker program, a powerful utility to allow programmers to create and modify Style Guide compliant user interfaces through a simple graphical design system, is now available through CATS to registered developers. ToolMaker promises to greatly speed up and simplify the creation of Amiga applications.

ToolMaker will no doubt be one of the topics that will be covered in January's International Amiga Developer's Conference to be held at the Orlando, Florida, Marriot. Commodore has been putting significant effort into helping developers from Europe market their products in the

US, and vice versa. An International DevCon may be very helpful toward this goal. In addition, the fact that CBM is trying to gather as many Amiga developers as possible from all over the world under one roof suggests that this could be a forum in which to discuss some major changes in the Amiga market... things like new chip sets?

After several years of development, the SANA II (Standard Amiga Networking Architecture) specification has been finalized. Although there are a number of excellent networking products out there for the Amiga (Novell Client software, EnlanDFS, and DoubleTalk come to mind), overall the Amiga's networking capabilities are still somewhat primitive. SANA-II will likely be a great help in changing this. It provides a standard, device-independent manner of connecting Amigas across various types of media cleanly and easily.

From the SANA-II documentation:

SANA-II Network Device Driver Specification

The SANA-II Network Device Driver Specification is a standard for an Amiga software interface between networking hardware and network protocol stacks (or for software tools such as network monitors). A network protocol stack is a layer of software that network applications use to address particular processes on remote machines and to send data reliably in spite of hardware errors. There are several common network protocol stacks including TCP/IP, OSI, AppleTalk, DECNet and Novell.

SANA-II device drivers are intended to allow multiple network protocol stacks running on the same machine to share one network device. For example, the TCP/IP and AppleTalk protocol stacks could both

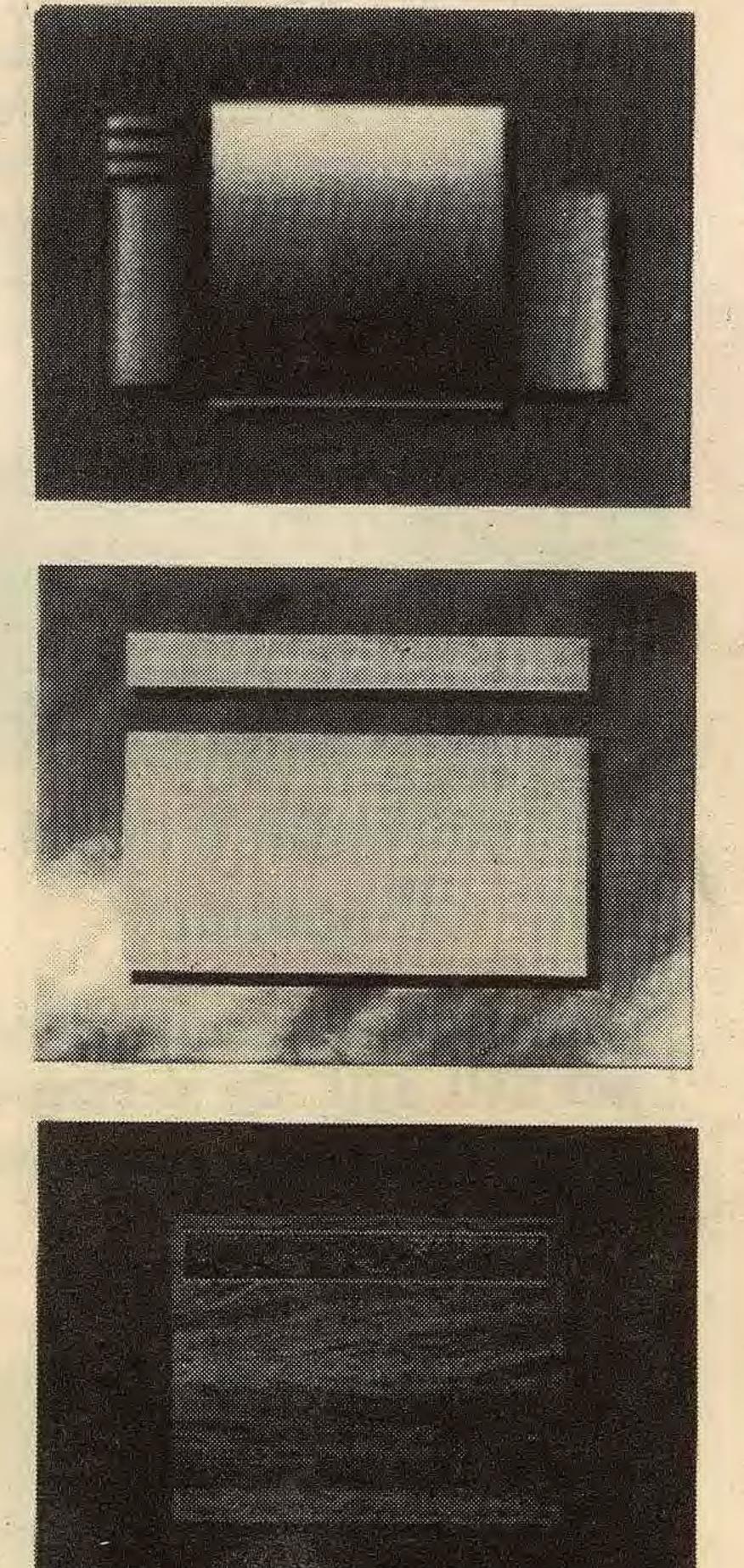
run on the same machine over one ethernet board. The device drivers are also intended to allow network protocol stacks to be written in a hardware-independent fashion so that a different version of each protocol stack doesn't have to be written for each networking hardware device."

Commodore will support SANA-II via device drivers for its own network hardware, as well as by providing support and evaluation services for third party SANA-II related hardware and software products. The SANA specification has been under development for several years and has been influenced by a great deal of input from the developer and user community. Hopefully it will lay the groundwork for powerful Amiga network applications and will allow Amigas to more easily integrate into existing corporate computer systems.

The high density floppy drives that have been rumored for some time (and, in fact, have actually shipped in a few machines either by accident or due to a short-

Continued on page 8.





SCREEN-MAKER

100 READY- MADE BACKGROUND IMAGES

SCREEN-MAKER images are created on mainframe broadcast computers, and digitally transferred to meet AMIGA 24-bit IFF color specifications

SCREEN-MAKER was designed to help TV broadcasters, cablecasters, and major television production centers create better graphics.

SCREEN-MAKER can do the same for you!

Call your AMIGA dealer for your copy of SCREEN-MAKER 2.2

100 images in 24-bit IFF

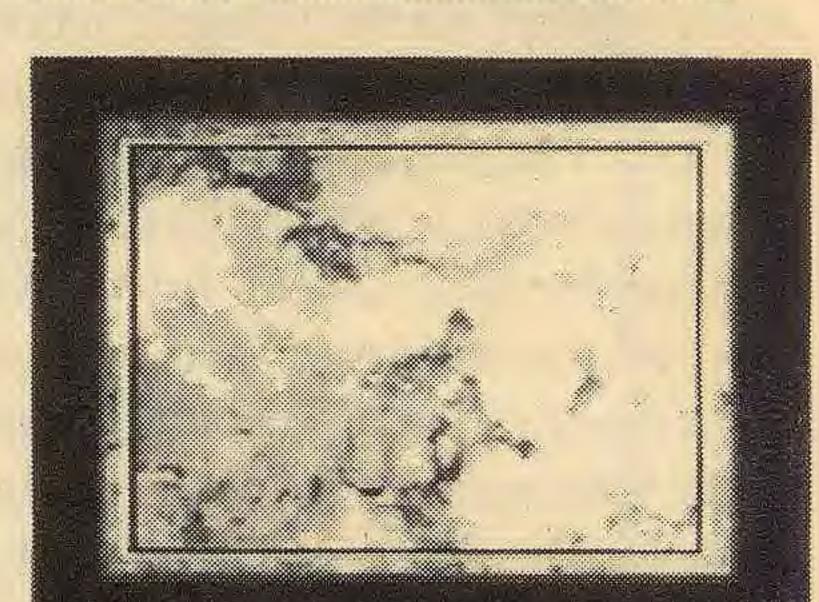
\$ 99,95 (List price)

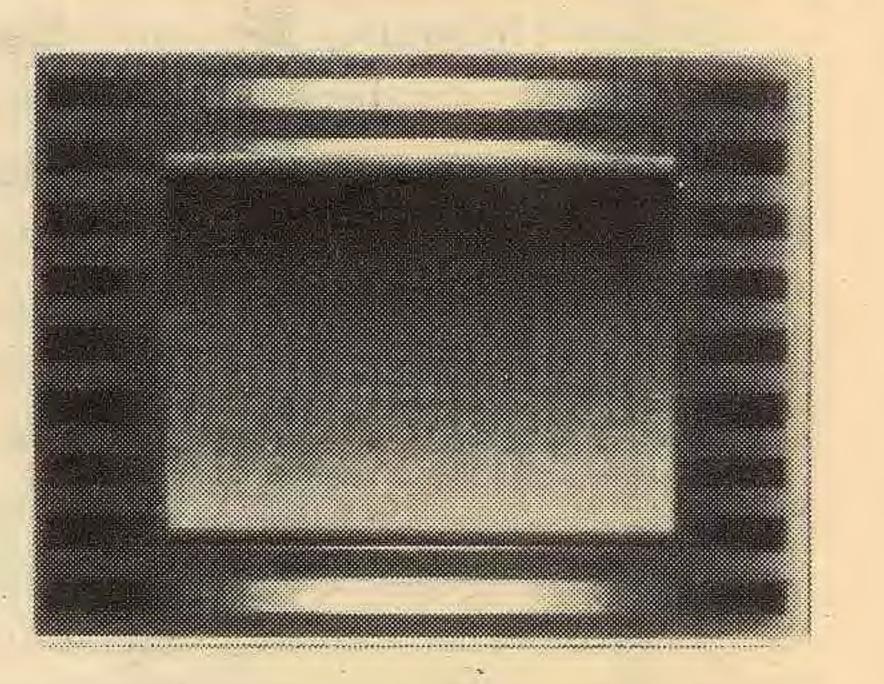
The Digital Graphics Library, Inc.

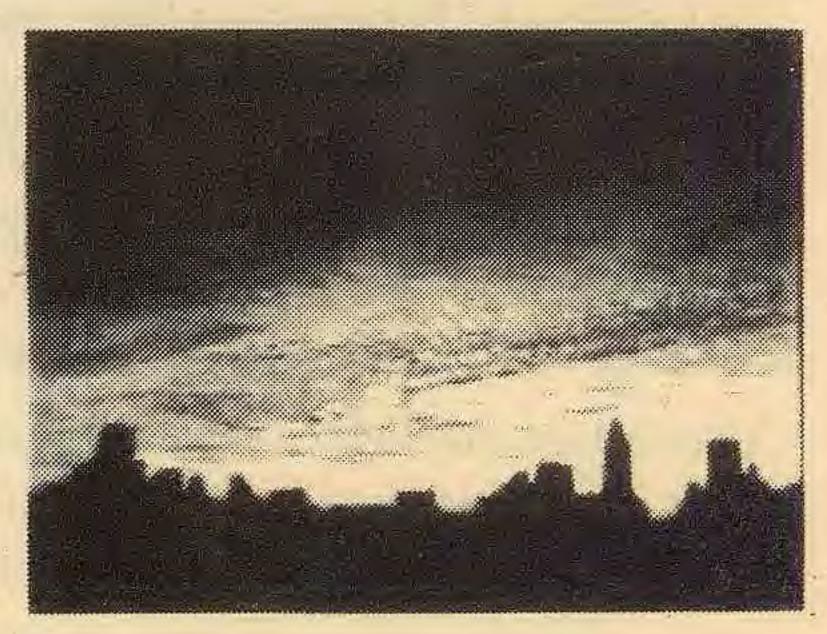
1382 Third Avenue Suite 333 NY NY 10021
Phone: (212) 978-8505 - FAX:(212) 879-0707

SCREEN-MAKER concept and images Copyright 1992, The Digital Graphics Library, Inc.

Amiga is a trademark of Commodore Business Machines, Inc.







Continued from page 7.

age of the normal drives at production time) are still not here. There are apparently part numbers for them now (the A2015 and A3015), but they can't be bought yet. Claims have been made that dealers can get them as not for direct sale but as parts for repairs, etc. However, representatives of several dealers have assured me that this is not the case, and that currently the only way to acquire one of these drives is to be lucky enough to have purchased one of the few A3000s that shipped with one inside.

What's the status of the 2.1 OS? Well, it exists and, according to rumor, is for the most part a done deal. As to when nondevelopers will be able to get it, there's been no word yet on that minor detail. Meanwhile, rumors of a 3.0 OS are already circulating; and while it's certainly too early to start listing features, there are a number of expected changes. These include the much-needed inclusion of a deviceindependent graphics library, a fully multitasking (OS/2 users would say "multithreaded") WorkBench (i.e. more than one simultaneous WorkBench operation can be happening concurrently), optional virtual memory for some machines, etc. Don't look for this one in the very near future, but when it gets here it should really make that AA chip set shine.

EMPLANT UPDATE

UseNet is buzzing lately over the announcement of the Emplant emulation hardware, due for shipment in the 3rd week of July. The initial announcement of the product was covered in detail last month, but here's a brief summary for those who missed it.

Emplant is basically a generic emulation board that will allow the Amiga to emulate just about anything with the proper add-ons. The initial release will provide Mac II emulation capabilities, including color support via the Amiga's native chip set or any of the major 3rd party display devices. Plug-in modules will add such things as SCSI, AppleTalk, and serial ports. Support for Mac Quadra ROMs will follow the initial release, and there will at some point also be a 386 or 486 module for IBM emulation. The Mac emulator is capable of running simultaneously with the Amiga OS.

Utilities Unlimited, Emplant's makers, seem to have acquired a bad reputation among the network's users for releasing buggy or incomplete products. However, Jim Drew of UI is a frequent participant in net discussions and seems very positive about the future of Emplant. The best advice is to wait until the product is actually shipping and people have had a chance to try it out before passing judgment on it. The fact that UI is spending large amounts of money on sending out brochures and purchasing ad space is promising, though.

Jim posted recently that, although plans were originally to only support Mac IIx ROMs in the initial release of the product, UI has found that these chips are relatively scarce and have decided to also include support for Mac IIsi and IIci ROMs. Emplant

will not actually require the presence of Mac ROMs; it will come with utilities for dumping them to a file either from the Mac or from the Emplant board. UI might just be able to get away with this scheme by specifying that users should "copy the ROM images from their existing Macs or legitimate Mac ROMs," this will probably mean that a large number of pirated/copied Mac ROM images will start showing up on BBSes for use in the Emplant board.

Meanwhile, AMax II+ has finally begun shipping after several years of "it's almost done, give us another month" from ReadySoft. If Emplant shows up and lives up to its advance billing, AMax will have a tough time competing, but for now it is a usable, viable, — and most importantly—available, Mac emulator.

In other emulation news, European developer Vortex, makers of the AtOnce board and a number of related products, are bringing to market the Vortex Golden-Gate bridgeboard. Whether or not this is related to the shareware Golden-Gate hardware hack that was floating around a few months ago is unknown at this point but seems likely.

The GoldenGate is powered by a 25MHz 386SX processor, clocked 5 MHz faster than Commodore's still-vaporous-in-the-US A2386 bridgeboard. It has an on-board IDE hard drive and high density floppy controller, and will hold up to 16 MB of RAM, 4 megs of which can also be used by the Amiga side. It also has its own proprietary expansion port for future upgrades, and has a serial and parallel port of its own. It is Windows compatible and lets the Amiga's mouse emulate a Microsoft serial mouse. No information is yet available on US pricing (list price in the UK is just under 500 pounds), but expect it to be distributed here through GVP and be very competitive with current bridgeboard offerings.

NO PERFECT COMPETITION...

According to some of the weekly PC industry magazines, Word Perfect corporation has quietly filed suits against a number of small computer companies for using the word "perfect" in their product names. This puts WP Corp right down there with Apple & its "Look and feel" nonsense in

FINALLY.

A MAGAZINE FOR
PEOPLE WHO CREATE
WITH THEIR AMIGA'S.

How to do things with Amigas:
art, graphics, animation,
video, graphic design,
drawing, titling, publishing,
multimedia, authoring,
3D, and, more.
Bimonthly. Articles and
tutorials. No games, no bull.

Box 1696 • Lexington, SC 29072 • 803-957-1106

the book of ludicrous lawsuits. Maybe WP should be sued by Webster's for using words from their dictionary, or by a company that's been making word processors for a little longer than WP (WordStar comes to mind) for using the word "word" in their product's title.

Will this suit have any effect on the Amiga market? Not likely, but there are a few products with names like "Perfect Sound"...

... BUT COMPETITION NONETHELESS

The still-falling prices of cheap, fast IBM-compatibles have lured away many die-hard Amiga users in recent months, and it seems likely from recent events in the Intel-based world that the trend may continue. AMD and Cyrix have successfully cloned offshoots of the '386 and '486, forcing Intel to slash its prices on the chips. IBM is planning on further drops in PS/2 pricing, and, in fact, is apparently taking steps toward entering the clone market itself! (IBM cloning IBM. . . really!)

It's also been estimated, though, that by 1995 at least 40% of the existing clone makers will have gone out of business. The first to go will be many of the cheap Taiwanese no-name brands, the ones who helped to inspire the current low pricing. Dealers and manufacturers have been heavily undercutting each other's prices in the clone industry for years, making less and less profit on each machine and counting on volume sales to keep them afloat. Sooner or later, as the market becomes saturated with 386s and 486s, some of these companies will start going under and prices will begin to stabilize.

There's a high likelihood that by the end of the year we'll start to see machines based on Intel's 80586 processor. Vague reports from users of early engineering samples of the chip report that it is a much faster processor than the 486, but that there is one major disadvantage: in order to achieve the dramatic speed increase the 586 will provide, Intel reportedly removed the 8086 mode that all the 586's predecessors had, in order to make room for new internal gadgetry. What does this mean?

When You Get A Guru.

Reach For

S. T. U.

THE AMIGA SYSTEM

THE AMIGA SYSTEM DIAGNOSTIC

Measure your system and test it with STU. STU, the memory and disk diagnostic for all Amigas.

Only \$34.95

Plus \$3 Shipping and Handling
Custom Services
P.O. Box 254

Moorestown, NJ

08055

Well, primarily, it won't run MS-DOS without either some sort of software emulator or a rewrite of DOS and most applications. (A PC emulator for the PC?) Windows and OS/2 will also likely need to be modified to some degree to boot properly on a 586 machine.

Meanwhile, Motorola is hard at work to provide us with the 68060, next in the 68000 line. As mentioned in previous articles, the 68050, which would have brought only relatively minor improvements over the 68040, has been dropped in favor of speeding up development of the '060.

What does all this mean to the Amiga? Well, it's obvious, and has been reiterated quite a few times in quite a few places: get that new chip set out ASAP, make your prices as competitive as possible (there's something wrong when a stock A3000 costs significantly more than a 33MHz 486 with 4 megs of RAM, SuperVGA, and a large hard drive. . .), hurry up with an '040 Amiga, etc. CBM can't possibly be unaware of what's happening in the marketplace, so I'm willing to bet that we'll see some major Amiga advances in the not too distant future.

NEW PRODUCTS AND NEW PRICES

A number of new products from Blue Ribbon Soundworks will be hitting the Amiga music & multimedia markets sometime this summer. Chief among these is the new version 2.0 of Bars and Pipes Professional. B&PPro2 has a long list of new and improved features, including improved notation capabilities, facilities for presenting slide shows and animations, graphical SMPTE editing, and control of external devices and software like Imagine, Scala, Real3D, and the Toaster.

Also from BRS are SyncPro, a device used to synchronize MIDI with other events such as animation, and *Miracle Tools*, for users of the *Miracle Piano Teaching System*.



Catacomb Classic Icon Driven Graphics Adventure. Great Art. Full Disk

Action/Strategy in the Antarctic in your hi-tech tank, fighting terrorists. Fuli Disk.

FEDNISHEN Y

Cartoon Arcade Action. As Seen in GAMEPLAYER mag.

2.0 compat. Latest Versions. Support the AUTHOR not the companies. Why Pay \$40+?

\$10/game. \$25 for all 3. \$2s/h Satisfaction or money back!

Breakaway Software. 12827 E. 27th Spokane, WA 99216. COD 509-924-4070

Gold Disk plans to ship Professional Draw 3.0 in late June. Version 3 will include such enhancements as better text, color, and bitmap manipulation capabilities, new and improved output features, undo, redo, and an improved AutoTrace utility. The biggest feature of PDraw 3.0, however, is its extensive ARexx interface, which is used by the many included prerolled "Tool Genies" and "Function Genies", similar to ProPage 3's "Page Genies". The program provides a proprietary hot link system between itself and Pro-Page 3, as well as facilities and examples for communicating with other programs through ARexx. PDraw 3 requires a hard drive and at least 2 megs of RAM and will list at \$199.95.

Oxxi, a long-time presence in the Amiga market, has announced price cuts on most of its products. These include Spectra-Color, AudioMaster IV, SoundMaster, Visionary, the SuperBase series, Draw 2000 v2.0, Presentation Manager, and the Amiga Novell Client Software. Registered owners of Oxxi/Aegis products can become "Friends of Oxxi" for an even larger discount.

TOASTING THE A3000

Heifner Communications, Inc. of Columbia, MO, plans to market a device they call the "Toaster Cozzy" (pronounced "Cozy"?), a device which will allow Amiga 3000 owners to use the Video Toaster 2.0 without mangling the Amiga's case and voiding the warranty. The following press release was posted to Usenet by one of the product's beta testers:

Heifner Communications announces the first in a line of high performance professional video peripherals for the Commodore Amiga computer. The "Toaster Cozzy' allows for the proper operation of a NewTek Video Toaster card in the high performance Amiga 3000 computer. No warranties are voided in this system, as no modification of anyone's product is needed. This setup will also allow you to continue upgrading to even more advanced Amigas as they become available. We just provide you with a new video cable upgrade. While the Cozzy was designed for the Amiga 3000, it works great with a 2000 or even a 500 with an expansion video slot installed. The Toaster Cozzy will also allow a second video slot to be activated with a simple upgrade later this year; for example, allowing you to operate a GVP IV-24 video setup along with a Video Toaster under the same Amiga. The Toaster Cozzy also solves the power supply problem encountered in many Amiga 3000 video setups. We provide a 65 watt regulated power supply with a "slaved instant-on" feature. The Toaster Cozzy also provides a stable black-burst generator with 5 BNC video output. Everything for the most professional and fast Video Toaster platform, ever made available! Available early July, 1992.

Contact: Ivan MooreHeifner Communications, Inc.4451 I-70 Drive NWColumbia, MO 652021-800-445-6164, FAX 1-314-445-0757

The Cozzy is essentially an external box which connects, probably via a custom cable, to the video slot. No pricing was mentioned.

Mathysion Promotion

Engineers, Scientists, Educators, Mathematicians and Graphic artists, take note! Math Vision is an Amiga-compatible package that allows you to enter and edit equations and recursive routines in a screen window and then display the resulting constructs on your screen in full color. The results are so wonderful that it's almost not like math at all, but like some weird, advanced, extraterrestrial form of string art.

MathVISION is also a serious mathematical tool. It can be used to explore the Mandelbrot and Julia sets, fractals, chaos and other topics.

First-time MathVISION buyers (and the Math VISION user who recommended the program) will also receive a free bonus library disk, as part of a limited-time promotion.

The library disks contain sample formulae, pictures and hooks that allow the main program to be applied to special purpose applications. Depending upon your area of interest, you may choose from one of four: "Secrets of an Artist", "Animation and 3-D", "Mandelbrot Variations", or the" Complex and Polar Arithmetic Library."

Participating Amiga dealers can provide more information. Coupons explaining the promotion have been sent to all registered MathVISION owners, to user groups and participating dealers. They may also be obtained by writing: Seven Seas Software, Inc., P.O. Box 1451, Port Townsend, WA 98368. tel. (206) 385-1956.

Grue-some Games

I zapped the little pac-men And beat the highest score I spent hours on arcade games But my brain was craving more

I invested in a new game Which sent me on a quest And spent three weeks in Daventry At King Graham's request.

"Moebius" took four weeks But "Bard's Tale" was a bear I spent 2 months in the dungeons Kept getting lost in there

And then I made a big mistake And thought that just for fun I'd buy an inter-active game An easy game, "Zork I"

It doesn't seem to comprehend The language which I use By the time I get the question right I'm murdered by the Grues

I haven't bought the answer book That's something I abhor (Besides, it's not available In any local store)

I think I'll play "Zork II" next At some (distant) future date I started playing this one in 1988.

Barbara A. Kane Elkhart, IN

\$19.95

Supra FAX Modem 14400 Baud

v.32Bis Modem with FAX ability transfer files at over 1000 CPS for \$299.95 only w/Atalk 3 and Fax software \$339.95

Fred Fish Disk Collection

Your Choice of disk 1 through 600 \$3.00 each or any two Fred Fish disk on one HD 1.78 meg 3.5" disk for \$4.50.

\$16.95 25 3.5" disk 1 meg unformatted 25 HD Disk 2 meg unformatted \$22.95 150 3.5" Disk Labels \$ 2.00

Syquest Cartridge with 50 Fred Fish Disk of your choice \$125 A \$150 software value.

AB20 CDROM

\$19.95

This Disc Contains the entire Amiga Internet Archive from ab20.larc.nasa.gov. There is more than 300 meg of software, over three thousand files.

On this disc you will find hundreds of utilities, business applications, communications programs, music programs, games, animations, programming languages, source code and demonstration disk.

With with Any Amiga, Ibm, or MAC and a ISO9660 SCSI CDROM Drive. While Disc is not compadable with CDTV it has been TESTED with an Amiga, NEC CDROM, and CDFS from Hypermedia.

DeskTop Library CDROM \$34.95

This CDROM Disc contains hundreds of books in standard ascii files for any computer system. Examples include: Aesop's Fables, the oddessy by homer, Shakespeare, books by Mark twain, Jules Verne, and hundreds more. Send SASE for more information.

DeskTop Library CDROM \$34.95 CDROM Caddy \$ 9.95

DEMO Disk: 880k single Disk \$2

- 1. RAMBO
- 2. ICE...A very good demo.

AB20 CDROM

- Industry
- Genesus
- Seven Sins
- Flash Concert Christmas Fantasia's

DEMO Disk: 2 disk set \$4.50 or 1 HD disk \$3.50

- **DecaySimpsons**
- Walker-2
- Space Balls
- Misc Demo's. A 3 Disk Set

For a complete product listing send a SASE or download it from:

StarLight BBS 404-739-1329 An Amiga Support System: HST, v32 A C-Net BBS, Technical Help OnLine Product Information

GT-906 Digitizing Your Inspirations

The Genitizer is designed to work with the Amiga systems and is compatible with all software that will support the mouse. Especially useful with today's CAD & Paint software. An easy to use digitizer for design engineers, drafters, architects, ...etc.

Reliable

The Genitizer, with its extreme accuracy, allows you to produce the exact graphics you require, You can trace an existing picture or create your own free hand drawing.

Genius Tablet Features:

- Resolution: Up to 1000 lines per inch
- Digitizing Area: 9" x 6"
- Operating Mode: MM serial (Summagraphics® MM 961 compatible)
- Accuracy: +/-0.01 inch
- Data rate: 150 to 19200 Baud (auto baud)
- · Proximity: .75 inch (20mm)
- Sampling: 20 to 100 pairs/second
- Interfaces: Serial asynchronous, bidirectional, with RS-232C output levels.
- Weight: 2.35 lbs. (1.07kg)
- Dimension: 1.25" (H) x 11.25" (W) x 8.25" (D)

Hardware Highlights

- Has adjustable flip stands for comfort in operation.
- The window cover sheet protects the surface of the tablet. Lift the cover sheet up to insert a template or drawing.
- The Genius stylus allows you to trace any image with professional accuracy.
 - You can also use the stylus to create your own free hand drawing.

All products and software mentioned above, are registered trademarks of their manufactures.

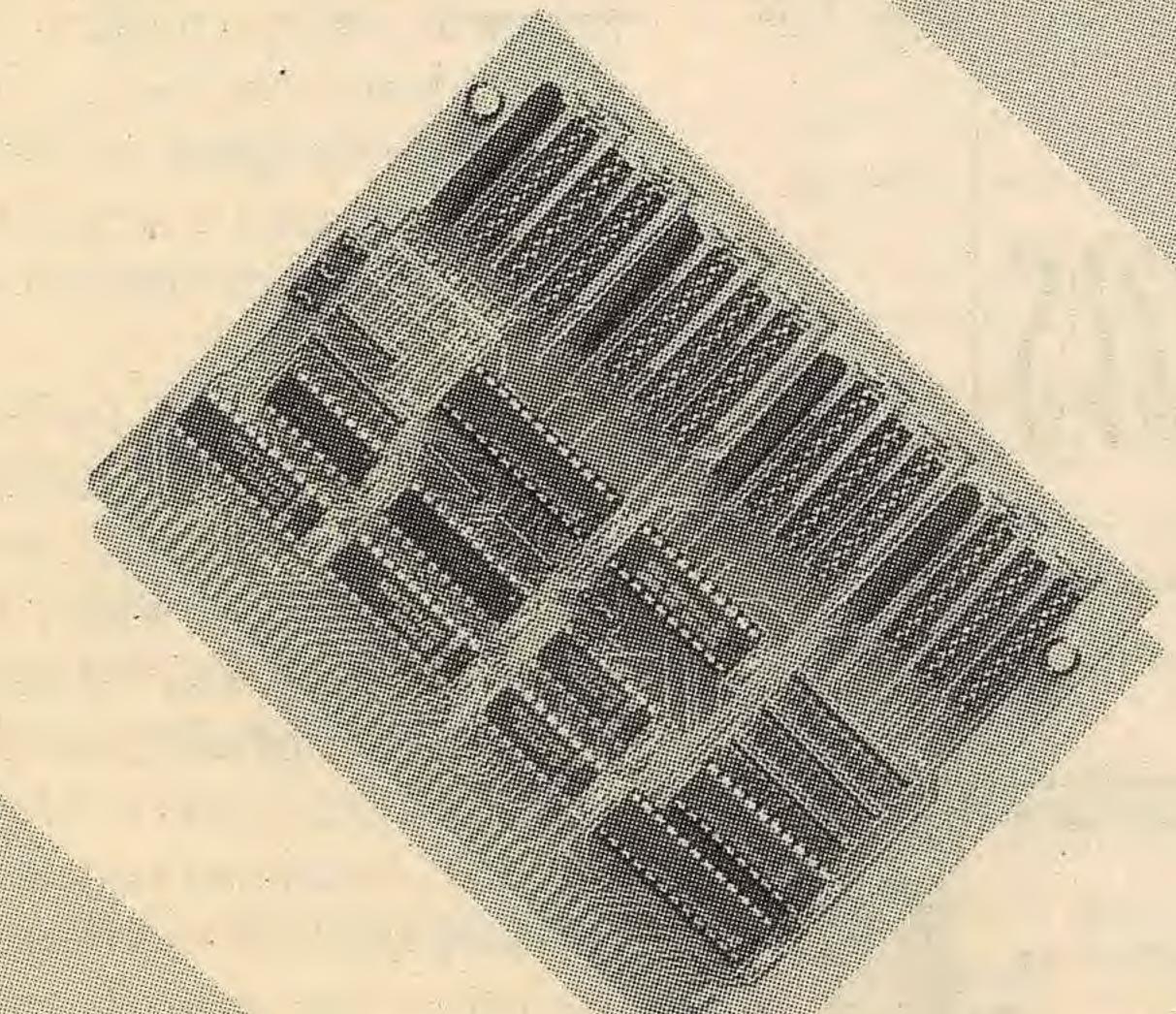
602 North Country Fair Drive · Champaign, IL 61821 Tel: (217) 356-1962 · Fax: (217) 356-4312

For more information, contact your nearest Amiga® dealer.

Dealer inquiries welcome.

Amiga is a registered trademark of Commodore-Amiga, Inc.

AMIGA BASICS...

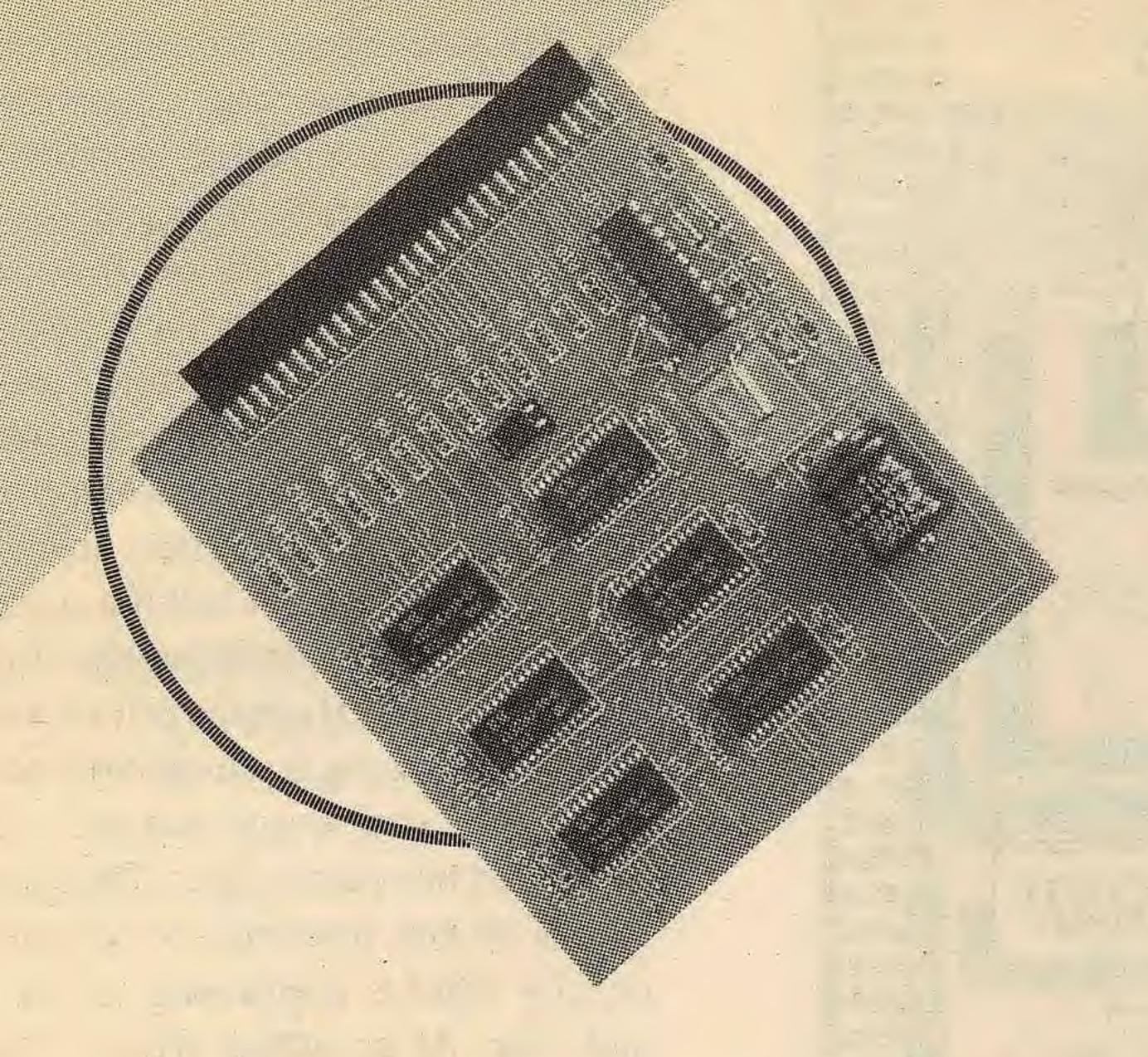


High Capacity A2000 Ram Card Series

- Compatible with A2000 series, includes
 - Ram Test software
- · Easy to install no special tools needed
- · 2MB RAM installed (expands to 8MB)

Opto-Mechanical Mouse Series

- Precise cursor control 290 dpi resolution
- Stylish and ergonomic design
- Top quality construction with micro-switch buttons



Amiga 500 Ram Card Series

- · Compatible with A500 or A500Plus
- · Fits in the A501 slot
- · Easy to install no special tools needed
- · Includes 512K RAM and battery-backed clock



602 North Country Fair Drive · Champaign, IL 61821 Tel: (217) 356-1962 · Fax: (217) 356-4312

For more information, contact your nearest Amiga dealer.

Dealer inquiries welcome.

External FDD Series

Compatible with all Amiga® computers
 Slim-line design with solid metal case
 Additional drive connector and on/off switch

Enhance Your Learning

The Buddy System picks up where "Help" leaves off

Everyone has their own learning style. Some choose to completely read a manual from cover to cover before attempting to click on the first gadget of a new program. If you are like the majority though, the first thing you do after ripping off the wrapper from your new software, is to start it up immediately and begin playing around. However, depending on the complexity of the program, studying the manual may be

hard to avoid.

Unfortunately, the quality of software product manuals covers a wide spectrum. Some manuals are enjoyable and informative, while some may be skimpy. Some manuals can even make you more confused after you have read them. There are alternatives and supplements that can help you along the way. The most obvious are third-party books and videotapes. Another

alternative is software-based tutorials, like the *Buddy System* series from HelpDisk

The Buddy System is a form of multimedia instruction that integrates text, graphics, speech and visual demonstration, through software, to form a hands-on learning tool. The goal of this concept is to provide the next best thing to a live tutor. Like any other tool, the Buddy System works best when it is used properly. It is not meant to replace your software manuals. Instead, it acts as an interactive supplement by showing you how to use your software and by promoting hands-on practice. Currently the *Buddy System* series supports *DeluxePaintIV*, *PageStream 2.2*, *Imagine 2.0* and *AmigaDos(1.3* and 2.04).

By taking advantage of the Amiga's natural multi-tasking capabilities, a Buddy System tutorial works with the supported program to provide seamless integration. This allows unhindered access to the program during practice and regular use. Once you've gotten familiar with a program's fundamentals, you can still use the Buddy System for online reference, since it can be made to wait in the background while you use the main program normally. When assistance is needed, a simple keypress will activate the Buddy System's helpful interface.

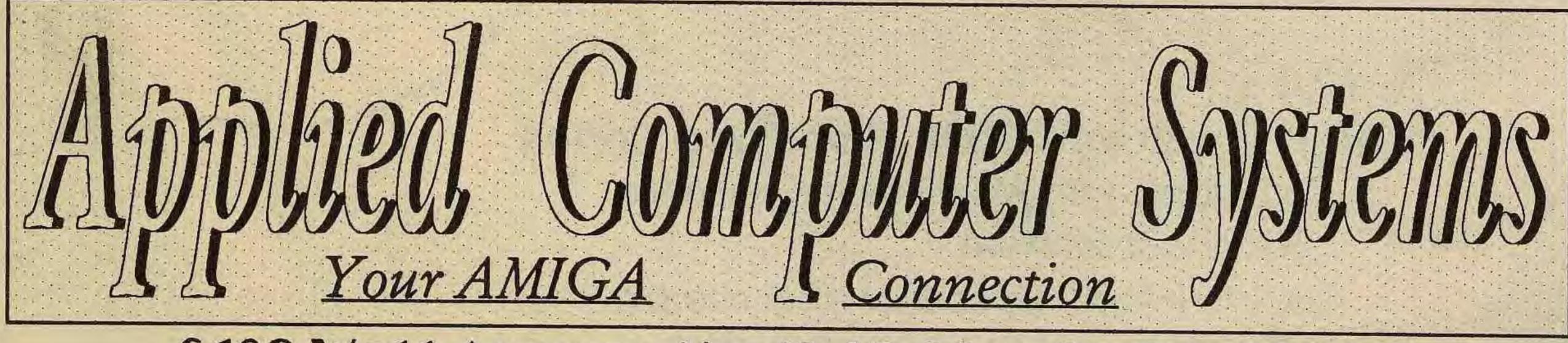
The text aspect of the Buddy System follows the "hypertext" concept. By clicking on certain words, you activate a crossreferencing system which looks up the word from an index. If a matching entry exists, the related text file is displayed and positioned at the point where the reference is found. Additional search functions are provided to let you enter words or phrases manually. For example, reading about "Startup-Sequences" in the Buddy System for AmigaDOS may refer to various. AmigaDOS commands and terms. If you want to clarify these words, just click on them and you will be taken directly to more concise reading material. If they exist, illustrations can be viewed.

Probably the most effective aspect of the Buddy System is its capability to show you how things work rather than just having you read about the program's functions and features. This is accomplished through visual demonstrations that actually use the program while you watch. You will see the mouse pointer move around the screen, selecting the menu options and gadgets necessary to perform a selected function. A person sitting at the computer showing you how to use that same function would provide the same effect on the screen. With a Buddy System tutorial, your computer will be the one demonstrating itself to you! To make it easy to follow a demonstration, captioning is provided on the screen, much like you would see on a closedcaptioned television show. These captions appear at key moments to let you know exactly what is happening on the screen and why. As an added effect, these captions can also be spoken by the Amiga's speech synthesizer. The captions and speech work together — At times when the Amiga's speech becomes hard to understand, you can refer to the text display for clarification, or, when you need to pay close attention to the events in the demo the speech lets you hear what's going on.

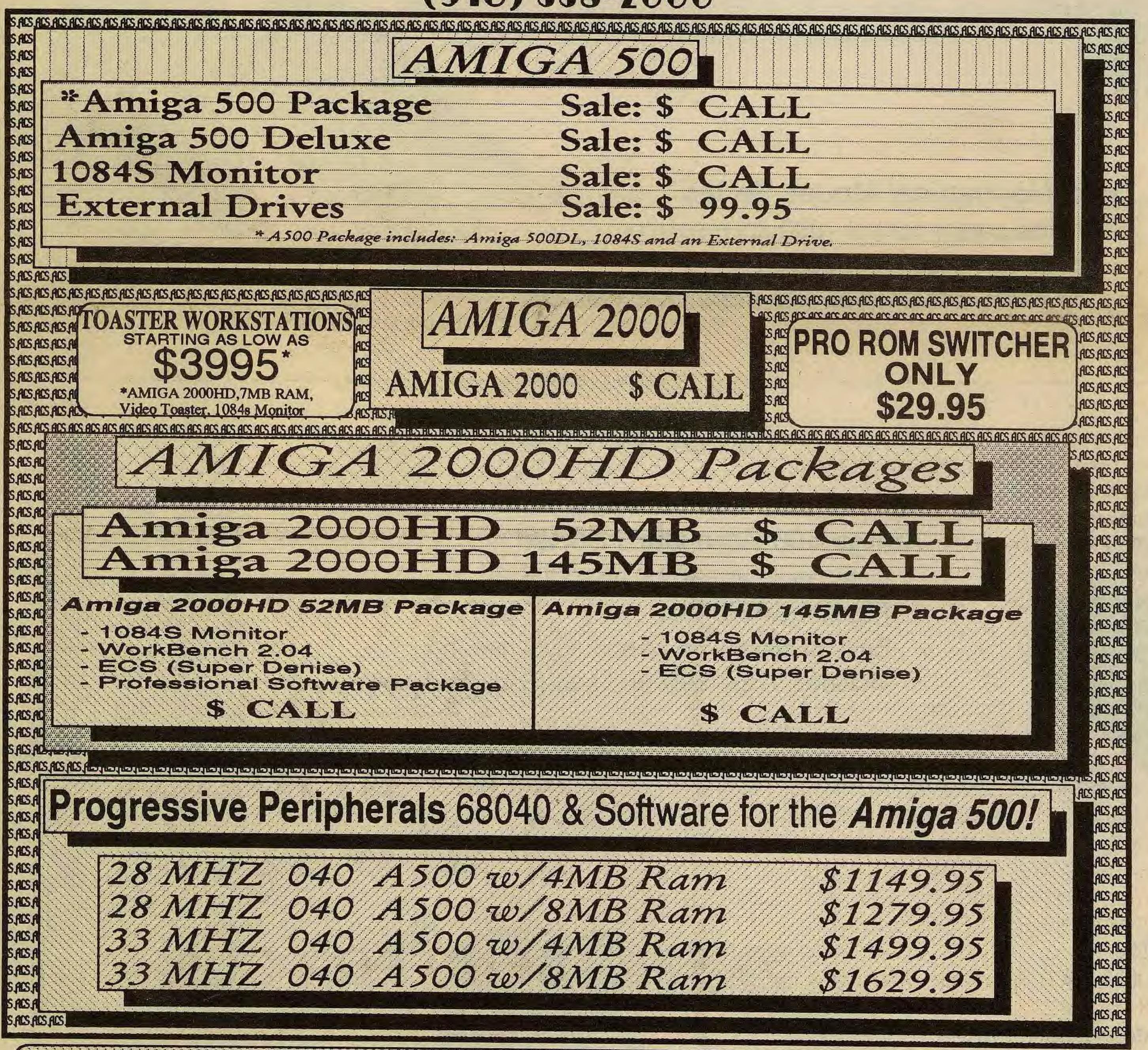
Buddy System is available on 3-1/2 inch diskettes for the following products:

Deluxe Paint IV, PageStream 2.2, Imagine 2.0 and AmigaDos (1.3 and 2.04). Retail price is \$49.95 each.

Rod Molina, HelpDisk, Inc., 13860-12 Wellington Trace #200, Wellington, FL 33414. (407) 798-8865.



6108 Watt Avenue North Highlands, CA 95660 (916) 338-2000



A500/A2000 Workbench 2.04 upgrades \$79.95 SupraFaxModem v32.bis w/GPFax \$359.95 1x4 Static Colum Zipps for A3000 \$160.00 per 4Mb SupraFaxModem v32.bis Standalone \$339.95

PRICES & AVAILABILITY OF PRODUCTS SUBJECT TO CHANGE WITHOUT NOTICE

Kyocera Introduces its "Think Green" Printer

Kyocera Electronics has made its first move into the arena of "ecologically correct" printers with the introduction of the ECOSYS FS-1500A aSi printer. According to Kyocera Vice President Gerry Rittenberry, the disposable cartridges found in the industry-standard laser printers have become a concern for many business and individual users.

"The first concern a user has is 'How do I store the bulky replacement cartridges," he said. "But the greater concern is what happens to the used, non-degradeable cartridges after I dispose of them."

Designed to preserve the environment, the ECOSYS FS-1500A aSi printer is being marketed as one of the world's most ecologically sensitive non-impact page printers. The long-life aSi design never requires cartridge replacement, helping to reduce the vast amount of non-biodegradeable laser cartridges that are disposed of each year. Its long-life imaging components consist of a thin film deposition amorphous silicon (aSi) drum, which combines with long-life developer and fuser units and LED scanning system to create an imaging system that will last longer than that of any other printer now available. For most desktop users this system will last the life of the machine. The ECOSYS aSI printer imaging system enables a total print volume that normally would call for as many as 75 replacements of environmentally hazardous disposable laser cartridges.

A major factor for long-life was the development of a unique toner which does more than provide the image. The new ECOTONE microfine toner, embedded with ceramic particles, cleans and reconditions the aSi drum during the printing process.

The ECOSYS aSI printer's toner is replenished every 5,000 pages (versus replacing a laser-printers's drum/developer/toner cartridge every 4,000 pages). And when the ECOTONE container is incinerated, the only emissions are water vapor and carbon dioxide!

"A typical laser-cartridge printer costs 3.1 cents to print a page, while the ECO-SYS aSi printer comes in at 0.78 cents," said Rittenberry. "Factor in one of the smallest footprints and a host of paperhandling options, and this is one of the easiest printers to integrate into any office environment."

The FS-1500A is compatible with popular desktop, mini or mainframe hardware platforms and leading networks.

Contact: Kyocera Sales Information, 800-323-0470. Technical Information 800-367-7437. Kyocera Electronics, Inc., 100 Randolph Road, Somerset, NJ 08875.

PRODUCT SPECIFICATIONS

Speed--10 pages per minute

Memory--1 MB standard, expandable to



The ECOSYS aSi Printer from Kyocera.

2, 3 4 and 5 MB (SIMM type) Resolution--300 x 300 dpi

Paper Feed-250-sheet paper drawer plus manual bypass

Paper Feed Options--500-sheet paper drawer x2: PF-5; power envelope feeder, EF-

Paper Cassette Sizes--Letter, 8.5" x 11"; Optional Legal, 8.5" x 14"; A4, 21.0 x 29.7 cm; B5, 18.2 x 25.7 cm

Manual Bypass--3.15" x 5.8" to 8.5" x 14", envelopes, recycled paper, OHP transparencies, adhesive labels, postcards

Page Description--Kyocera Page Description Language (KPDL); Prescribe II; Optional KPDL (PostScript compatible interpreter)

Printer Emulations--HP LaserJet Series III (PCL-5), KCGL(HPGL), Diablo 630, IBM ProPrinter X24E, Epson LQ-850, Line Printer

Resident Bit-Mapped Fonts--79 standard, 8 optional

Resident Scalable Fonts--13 standard, 46 optional

Download Fonts--Kyocera and HP format, Intellifont, Speedo Font, PostScript Type 1

Interfaces--Parallel and RS-232C serial; Optional: AppleTalk, Ethernet, Token Ring, SCSI, GPIB

Dimensions--13.6"(W) x 8.7" (H) x 13.8"

Weight--29.8 lbs.

Looking for Amiga Educational Software?

SEND FOR OUR FREE CATALOG

Micro Ed, Incorporated P.O. Box 24750 Edina, Minnesota, 55424 (612) 929-2242

Your Amiga can be an ESL Teacher

by Tory Esbensen

For many years, the teaching of foreign languages was heavily influenced by the idea that because language is talk, and talk is language, the primary skill to be learned was the production of appropriate sounds in the new language. "Repeat after me" was the recommended teaching model. This approach seemed sensible enough. So most foreign language teachers placed practice in *pronunciation* at the center of their instructional efforts. However, there was a problem with this strategy: It didn't work very well.

AN EFFECTIVE IDEA

Fortunately, over a period of time, dedicated teachers and researchers have discovered that this "talk-talk" approach to foreign language is actually the reverse of what should be done. Listening comprehension, rather than skill in pronunciation, should be the primary learning goal of every student. If this emphasis on comprehension is kept "front and center" from beginning to end, progress in foreign language learning can be both rapid and pleasurable for all concerned.

USING THE AMIGA

Let me describe an introductory Amiga program that I designed, based upon a comprehension approach to instruction.

It consists of eleven disks and can be used with any non-English speaking student, because all meanings are displayed through pictures.

I have also designed another format where all meanings are expressed through the written native language of the learner—for example, Spanish text on the screen for Spanish-speaking students. However,

an adequate description of that program must await the publication of a future article.

A PICTURE APPROACH

This Amiga program features listening comprehension based upon meaningful pictures with which the student interacts on a continuing basis. Some of these pictures signify various person, places and things. Others come to stand for certain imperative commands. Still others gradually evolve so as to represent important concepts of one kind or another. All of these pictures are carefully introduced so as to carry easily understandable meanings.

LESSON STRUCTURE

Each lesson has a teaching phase and a testing phase. During the teaching phase, various pictures appear on the screen. The learner clicks the mouse on any given picture and listens as the Amiga speaks the meaning of the picture.

Example: "This is a MAN".

Example: "This is a WOMAN".

The student can repeat this procedure as often as desired. At some point, the student may decide to be tested on the pictures. The computer will then randomly say the meaning of one of the pictures on the screen. The student's job is to click the mouse on the picture being named by the computer.

If any mistake is made, the computer will reveal the answer, but will stop the test and go back to a menu screen. This will enable the student to choose whether to repeat the test immediately, or to review the teaching phase.

There is also a Summary Test that covers all of the lessons on a given disk. This Summary Test must also be completed without error before the student can be said to have mastered all of the material on the disk.

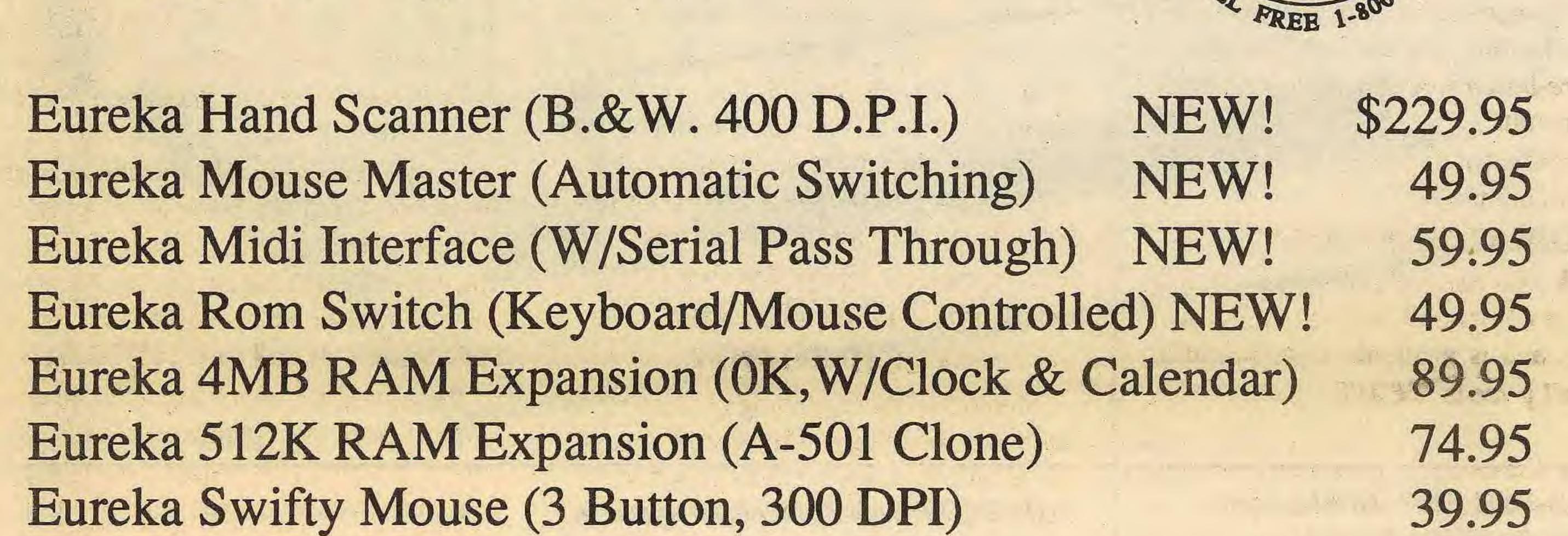
THE IMPORTANCE OF NOVELTY

Tests may require the student to make novel choices. For example, the spoken English may refer to a picture panel containing elements that are combined in ways not previously presented to the student. That is, while the individual picture elements may be familiar to the student, the manner in which they have been combined within a panel may be new to the student. This ability to cope with novelty is an important learning achievement. It demonstrates that the student is engaged in more than rote memorization. Throughout the program, the computer challenges the student in that way.

COMPREHENSION THROUGH ACTION

If learning is to be effective and efficient, then every student on an individual basis should be demonstrating comprehension through action as instruction pro-

Omni-Eureka Products From Micro R. & D.



34.95
\$149.00
\$129.00
\$CALL
\$39.95
\$19.95

Try the Omni-Eureka or Micro R. & D. products today. We think you'll be very pleased. As always, Micro R. & D. gaurantees your satisfaction. Whether it's the Eureka Brand or Micro R.&D., we stand behind our products 100%. See your dealer or call us direct. We accept Visa, Master Card and COD orders.

(800) 527-8797 (308) 745-1246FAX
Dealer Inquiries Welcome

Continued from previous page.

ceeds. In keeping with this point of view, the meanings of the picture panels tend to move from the descriptive toward the imperative. For example, the descriptive English utterance "This man is running" in lesson 3 of disk 1 will have been transformed into the imperative English command "Run" during test 5 on that first disk. This instructional design also makes it relatively easy for that student — under the direction of a teacher or someone else knowledgeable in English — to "act out" various requests in English that may have been embedded within the computer-based language

WORDS IN CONTEXT

Additionally, the spoken English is presented naturally, usually in *chunks*. No attempt is made to isolate the "little" words such as *is*, *a* and, the, and so forth. This approach is used because, if for a given set of pictures, the same "introductory" sounds (*This is a...*) are presented, then attention will properly be paid to the final sound (or word) that differentiates on such utterance from another:

This is a MAN. This is a WOMAN.
This is a CAT. This is a RAT. And so on.

PROGRAM LIMITATIONS

The program would be improved if digitized speech were used instead of the existing Amiga voice. Although diligent use of the available Amiga phonemes can make the English reasonably clear, the robot-like Amiga voice is obviously not as good as a digitized human voice.

The program also has a limited vocabulary. If we used the format employing the native language of the student, a much greater range of English could be taught. However, the use of the native language screen text would require that separate programs be written to accommodate students from different countries. As mentioned earlier in this article, I have developed an initial set of such lessons for Spanish-speaking students. But these, in turn, require a certain reading level in a

particular foreign language — in the case of my lessons, Castilian Spanish. It would seem that there is no single perfect answer to the problem.

Another limitation of the program is that it does not include work with "survival" English — the English one would find useful in restaurants and other public places. Its main strength is in acquainting students with English syntax — the way that English is constructed, which is often at variance with other languages.

Michael Wilson, formerly an ESL teacher at Mississippi Community College in Arkansas has commented, "If a student comes to us with zero English ability, for the first three weeks our primary method of instructions with that particular student is the use of the ESL disks from MicroED. The students seem to acquire sentence structure and basic vocabulary quite well from this series of disks".

AN UNEXPECTED APPLICATION

I have been told that teachers of mentally retarded students have seen constructive possibilities for this program. I was initially surprised to hear this. However, upon reflection, I can understand why such a picture-based program might yield interesting results.

Do readers of this article have any other ideas or comments?

PRODUCT INFORMATION

English as a Second Language (11 disk set) is compatible with all Amiga systems and is available from MicroEd. Retail price is \$389.00.

Tory Esbenson is president and chief educational designer for MicroEd Incorporated. He has taught at all grade levels and has been an elementary principal, an assistant superintendent, a superintendent, university professor and college dean of instruction. He has served as consultant for the McGraw-Hill Book Company and as an education author for Commodore Business Machines.

Continued from page 1.

The soundscape is generated using concealed motion sensors and twenty-four speakers hidden at various locations and elevations throughout the space. Until visitors approach an area, it is completely silent. For every speaker location, there is a certain set of sounds which would be appropriate for that location at that time of day, as would be the case in the natural world. Each time a computer receives a signal indicating the presence of a visitor at a sensor location, it instantaneously randomly selects one of those sounds for playback at a high fidelity 16- bit digital sound stereo background through any of the twenty-four speakers desired. It also generates a subtle stereo background ambience around the visitor's location, which aids in blending the foreground sounds together to create the image of a natural environment. Throughout the space, this process takes place continuously and

simultaneously as visitors move from one sensor location to another, generating their own continuing collage of sounds from the twenty-four speakers. In addition, the software has been set up to be sensitive to the total number of visitors within the environment at any one time, causing the level of triggered sounds to rise or fall accordingly. Finally, the I.S. InterAction System has complete control of an automated lighting board, as well as the lightning effects for a dramatic thunderstorm set to occur at random intervals.

"Every time you visit Wanuskewin, you can have a completely different experience," says Integrated Solutions' Jim Folk, who is in charge of the digital editing and preparation of the sounds heard in the installation. "The storm, for instance, will be quite physical, using a high-powered sub-woofer system for the floor-shaking rumble, and multiple speaker locations to

For any sampler, sequencer, or other program using IFF samples. (Visa/HC)

SAMPLES FROM: KORG, ALESIS, ROLAND, YAMAHA, ENSONIC, EPS, MIRAGE, LIVE INSTRUMENTS, AND AVAILABLE BY CATEGORIES OR MIXED. 2 disc for 59.99

AND MANY MORE. (MONO-STEREO) ELATION RECORDS 1 (800) 383-9541

SAMPLE MASTER DISCS ARE COMPATABLE WITH ANY AMIGA COMPUTER. IN ORDER TO USE THESE DIGITIZED SOUNDS ALL YOU NEED IS A SEQUENCER, SAMPLE PLAYER, OR UTILITY THAT WILL PLAY BACK IFF SOUNDS. THESE ARE AVAILABLE COMMERCIALLY OR THRU THE PUBLIC DOMAIN FOR A LITTLE AS 5.00 OR CAN BE PURCHASED DIRECTLY FROM ELATION RECORDS. CALL 1-(800)383-9541 NOW ? ELATION RECORDS-2131 QUAKER RODGE CT. STOCKTON, CA 95206

give visitors that eerie sense of motion as the thunder moves overhead and rolls out into the distance. But because there is no way to predict when the next thunderstorm is going to occur, it's possible a visitor will have to return several times before experiencing it!"

Continuing even further with the concept of avoiding predictability, the thunderstorms have also been programmed to change from one time to the next: sometimes visitors will hear no more than distant rumbling, or there will be no rain, other times the storm will abruptly start overhead. Even though each storm will follow a natural progression of events comparable to a real thunderstorm, the individual placement of lightning, thunder, wind and rain events within a storm—even the intensity and duration of the storm itself—will be different each time.

MORE THAN HOLODECK TECHNOLOGY

Sound like the beginning of Star Trek's holodeck technology? Maybe so. But you'll find plenty to enjoy on those return visits. There's much more to Wanuskewin's 290 acres than the exhibit halls.

One of the most important places is the Medicine Wheel site, located on the prairie at the south end of the Park. The wheel consists of a central mound of stones surrounded by a ring of stones. Three outer stone piles (or cairns) are found encircling the two inner rings. From an aerial view, the alignment looks like an old wagon wheel, hence its name. Archaeologists have also unearthed tipi rings, buffalo pounds and buffalo jumps that date back as far as 6000 years.

With at least another thirty years of archaeological study still in the ground, Ernie Walker, head archaeologist at the Park, envisions work going on "well past my time." In fact, he deliberately works only part of a site, leaving much of it untouched, "for future generations of archaeologists who may have much better equipment."

The visitor's center is an impressive building: shaped rather like a tipi, it blends in and seems to "bend down" to meet the curve of the earth, blending into the land-scape instead of dominating it.

A series of stone cairns leads visitors up a path to the main doors on the west side of the building. Inside, full-size replicas of bison dramatically illustrate the main of the building: it is a place where the not-so-recent past is brought to life in conjunction

with the ever-changing culture of Saskatchewan Natives today.

Although the buildings exterior resembles a tipi, its restaurant, capable of seating 130, cooks traditional Native fare such as bison and saskatoon berries, not over an open fire, but in an efficient, modern kitchen.

The visitor's center isn't reminiscent of the traditional musty museum, where "don't touch!" is the rule. Instead, many of the displays are interactive — visitors may don a predator's cape, a robe worn by hunters, or squat in a council tipi, listening to an audio recording of an Elder telling stories, or look into "discovery drawers" filled with artifacts.

In the archaeological theater, visitors are ushered into the reconstruction of an archaeological dig, where actual artifacts line the walls in layers. A spotlight focuses on each artifact while a guide explains its meaning and its placement in the dig.

Park facilities also include an outdoor amphitheater for public performances, where "anything from traditional Native dances to fashion shows" can take place, says Director of Visitor Services Vance McNab, as well as an art gallery where changing exhibits will be on display.

The archaeology labs are off limits to the public most of the time, but a table of researchers has been set up in public space, and a window on an inner wall of one of the labs allows visitors to watch archaeologists in action.

For those visitors who want to take something home with them, a gift shop selling local Native crafts is located just inside the main doors.

While Wanuskewin Heritage Park had already achieved National Historic status, park officials aspire to even greater heights — International Heritage status. If this happens, Wanuskewin will be in select company, one of only three Canadian parks of recognized global importance. When archaeologists begin to publish the results of their findings, McNab expects that International status won't be far behind. "It's only a matter of time," he smiles.

At Wanuskewin, time is definitely of the essence: each layer of archaeological time tells a story. Each story from the past blends with the stories told by Native storytellers today. Tomorrow's technology brings yesterday alive — today.

Aquaventura

Wet and Wild from Psygnosis

by Lee Heywood

There are two great unanswered mysteries in this universe: #1 is "Why do I always have one odd sock left over when I do laundry?" #2 is "Why does Psygnosis take particular delight in trapping me at my computer playing their games when I should be doing something frivolous like sleeping?" Yes, Aquaventura is one of those: "Just one more time, and I'll go to bed" games. In fact, I've rebooted several times just to watch the intro.

The intro is quite spectacular, a raytraced animation that would not be out of place in some recent science fiction movies. But an intro alone is no reason to shell out hard-earned bucks. What really counts is the game, not the packaging, and Aquaventura is no disappointment.

Normally I just skip through the documentation to the control section, but this time something on the opening paragraph caught my attention and I found myself reading and enjoying. The manual manages to set the scene with a sense of humor that is uniquely British. Sometimes it pokes you in ribs and sometimes it sneaks up on you. The manual will also explain the joke in the intro.

The story line is that the Spurcians have wiped out all humans except you (and your faithful Aquacraft), so you are out to kick donkey.

Aquaventura is a vector-graphic oriented, 3-D style, shoot-em-up with incredibly smooth scaling sprites. A sort of "Flight Simulator meets The Juggler" with a good measure of nasties thrown in. It starts with a mission briefing identifying your enemies and giving a run-down on the procedures necessary to get to the level's boss. The first level is fairly easy, a sort of training mode, but sets the tone for the next nine levels. First you destroy the generators which keep popping up out of the sea to launch alien craft. Next, target the solar panels which power the forcefield generators guarding the level boss's pyramid. After the pyramid is destroyed, the level guardian makes an appearance. Then it's into the AquaTunnel to the next level. At the end of the tunnel you get an additional weapon, missiles are replaced and

fuel replenished.

The screen display is like a flight simulator, with a rear view of your craft as it banks, climbs and dives across the landscape. There is an instrument panel across the bottom of the screen, with the radar screen prominently displayed. Your joystick acts like airplane controls: pull back to go up, forward to dive, etc. What really gets your attention are the sprites, especially the multi-cell alien craft. Rotation and scaling at this speed shouldn't be possible on a standard 68000 equipped Amiga.

If you only buy one Arcade game this month, make sure it's Aquaventura.

Aquaventura lists for \$49.95.

Excuse me, if this review is a little short, but I've got to back to playing.

Psygnosis N.A., 29 St. Mary's Court, Brookline, MA 02146. (617) 731-3553, fax(617)731-8379.

ZPPERWARE

The Amiga Enthusiasts' Choice for

PD/Shareware!

"In the Amiga PD World, I have yet to find a

better company when you compare selection,

service, and getting the most programs for

your money. Thank You."

Jozef Vogel

Vermillion, SD

More Good Reasons to Subscribe to Amiga News Now!

Subscribe now and receive a Special ZIPPERWARE disk free!

You will enjoy the 10 Fabulous Software (over 1.2 megs total) listed below....



- Official Global PD/Shareware Library
- POSTSCRIPT TYPE 1 FONTS -- included are 2 fonts for Pagestream. Hotshots & Miami Nights! Will work with ProPage if converted.
- ANTI-VIRUS -- includes VIRUSX 5.0 for preventing nasty virus infection on your disks and hard drives. Essential to every Amigans!
- CLIPARTS -- you'll find 15 hi-res black & white images of "Animals" and 14 hi-res black & white images of "Comedy & Humor" for DTP!
- MODULE MASTER -- play two impressive songs with this neat program. Features: Scope & Spectrum display, and much more!
- DISK COPIER -- you'll find Professional D-COPY 3.0 very useful to duplicate multiple disks or commercially "protected" disks! Good!

DOS HELPER -- a program that will help you understand AmigaDos and the CLI commands. A must for all Amiga owners!

MOTHERLODE -- This game is great! It is a clone of the classic LODERUNNER with better graphics/sound and a tougher gameplay!

- AGRAPH -- written in AMOS, this is an excellent user-friendly graphing software. Use it for reports or multimedia presentations!
- FREE PAINT -- a painting program just like DPaint with complete manuals. You'll be amazed at all the quality features and tools!
- VIDEO LIBRARIAN -- now you can organize your messy collection of videotapes with this database program. Simple, just enter data!

Sponsored by ZIPPERWARE, P.O. Box 95285 Seattle, WA 98145 (206)747-1964

- please allow up to 4 weeks to receive free ZIPPERWARE disk -

Continued from page 1.

on the A3000. The floppy drive and serial ports are now stacked in the same way as the SCSI and parallel ports, as are the RGBA, VGA, and audio ports. There is a microphone port that works with the builtin digitizer, with 8bit 22kHz sampling possible. Not exactly CD quality, but better than the toy CODEC samplers found on the NeXT, Mac, and others. The keyboard and mouse ports are on the rear of the machine, with the joystick ports stacked vertically. This stacking leaves just enough room for a pair of MIDI ports and another port that was covered with a plastic cap on both of our units. We pried it off and it looks like a PCMIA slot, but we've not been able to confirm this. Given that the A600 has one, this would not be a bad idea, but it seems odd that it was covered up like that.

The new mouse looks to be the same as the pregnant mouse, but the A3000 came with a three button and the other machine a two button. Both had standard A3000 keyboards. The most shocking thing about these machines is how much they feel like existing Amigas instead of a new breed.

The AA chipset is a real improvement over the ECS, but it may not be enough to keep the Amiga competitive for anouther 7 years. Some of the chips are similar to those in the ECS, but none look to be drop-in replacements for existing machines. Agnus, Denise, and Paula have been improved and all three are now surface mount chips roughly the size of the fat Agnus. There are three other chips that have tape covering the names, but one of them is certainly an Amber type de-interlacer chip. It has 1M of VRAM in order to handle the increased color depths and deinterlaces all but the highest resolution modes. We peeled back the tape a bit on the other two and one is named Lisa, the other was just a number. The Lisa chip appears to be responsible for the graphics, but its relationship with Agnus and Denise is not so clear. The other chip may be the rumored DSP chip, but none of the software we have mentioned it specifically. There is an A/D chip for the microphone and two D/A chips for the audio in the same general area, so they are probably related.

Amiga owners will be surprised at some of the features of the AA chipset and disappointed with others. The solutions supported are similar to those of the ECS, with the addition of the 800x300, 800x600 interlaced, 1280x480, and 1280x960 interlaced. The Amber de-interlacer works with all of the modes, but most SVGA monitors can't handle the noninterlaced 1280x960 mode. All modes can be up to 8 bitplanes except for the 1280 modes, which are limited to six. The palette is 24 bit, but there is a way to simulate 12 bit for compatibility with some older. software. A pleasant surprise is the Super-HAM mode which uses 10 bits to allow for pseudo-24 bit color. This works in the 320 and 640 modes and is nothing short of spectacular, with the bonus of being able

to handle up to 30 fps for some amazing animation. The 800 and 1280 modes have 8 bit 256k color and 6 bit 4096 color HAM modes, respectively. There is still a problem with ringing on raw images, but the better programs seem to do a pretty good job with reducing the problem. The sprites now change to match the resolution of the screen, so pointes look much more professional. They may be up to 64 pixels wide, with no height limitation. There are still only eight per scanline, but the number of colors is up to 16 in all modes except for 1280, which is only four. All in all, these Amigas have graphics that hold their own against offerings for the PC and Mac, but they won't be able to last for another seven years without improvement.

The Art of Making Art

by Mary Fraser

When you think of "art", generally you visualize portraits, landscapes and sculptures on display in some gallery or museum. "Art" evokes associations with paint, varnish and brushes — not computers. Computers? What do computers have to do with art? Is it something computers do when they're not processing words or manipulating databases?

If they're in the studio of Ilene Astrahan, they're her primary artistic tool.



"Marilyn Becomes Crystal"

AMIGA The Grapevine Group, Inc. AMIGA North America's Largest Supplier of Amiga Custom Chips

JPGRADES • REPLACEMENT CHIPS 8373 Super Denise/disk 35.95 8364 Paula 21.95 5917 Gary Chip 12.95 8520A CIA Chip 9.95 1.3 Kickstart ROM 24.95 2.0 ROM Upgrade Kit .. 2.0 ROM chip only 39.95 MISC. PRODUCTS Printer Port Adaptor (runs on any CBM printer to AT-PC) 29.95 ASO1 Amiga 512K Module/

DKB PRODUCTS 2 Meg Angus, chip puller & 'Final Test' diagnostics\$294.50 Buy the MegaChip from us and we'll give you the Super Denise 8373 for...... \$31.50 Insider II board for A1000..... \$176.50 with 1.5 Megs \$237.95 Multistart II 3 pos. ROM switch \$42.50 Kwikstart II ROM switch \$59.95 POWER SUPPLIES

A500 45 Watt power supply \$67.50

MEMORY EXPANSION 1x4/80 SC Zip for A3000 \$19.95 256X4/100 all ICD, GVP, etc. \$4.55 1x8/80 SIMM \$38.95 Phoenix Board - within minutes transform the A1000 into a powerful new Amiga that approaches the specs of the A3000. Eliminate compatibility

ICD PRODUCTS AdRAM 540 1 Meg \$127.95 Each Add. Meg of RAM .. \$38.95 AdRAM 2080 0K ... Each 2Megs of RAM. . \$70.00 AdSCSI 2080 0K ... Each Meg of RAM .. \$38.95 AdSpeed . Flicker Free Video. \$238.50

Mastercard

A500 Internal floppy drive 67.50 Universal Switching Power Ami Alignment System...... 28.50 A3000 P/S (exact replace) \$169.95 GRAPEVINE GROUP EXCLUSIVES A500 PC Motherboard: New • Populated and tested. (Available in NTSC or PAL)\$99.95 A2000 PC Motherboard: New • (Available in NTSC or PAL) includes 1 Meg Angus 1,3 Switch-Itt by Global Upgrades Inc. Automatically switch between 1.3 or 2.0 ROM from keyboard or mouse. A built in speaker confirms this. Does not overlap the 68000 for compatibility with Buy the Switch-Itt with the 2.0 ROM chip for the Super Package price of\$59.95 8373 Super Denise ECS with productivity/scan mode, etc. includes Denise installation/s.w.diskette \$35.95 Fatter Angus (8372A) 1 MS w/chip puller (a necessity) 'Final Test diagnostic disk and instructions ..\$44.95 Advanced Amiga Analyzer (hardware and software) Sophisticated (but simple to use) diagnostic tool. Perfect for service centers

Discover

3 Chestnut Street · Suffern, NY 10901 VISA Order line only 1-800-292-7445 Customer Service (914) 368-4272 Fax (914) 357-6243

International Order Line (914) 357 2424 · We ship worldwide Prices subject to change . Add UPS charges to above . 15% Restocking Charge . Hours 9-6 ET. M-F

Astrahan came to computer art after years as a magic realist and tromp l'oeil painter, using egg tempera and acrylics. She also worked extensively with liquid light shows during the Sixties. Her works are in the collections of the Duke of Bedford, Stephen King, Malcolm Forbes and the Texas Instrument Company.

"I do not try to imitate the effects of traditional painting," Astrahan says. "After all, watercolorists don't imitate oil painting. The artifacts of Computer Graphics such as jaggies, dithering and scan-lines are a valid part of the medium, as are the paint strokes, impasto, canvas texture, etc. of traditional media. The strength of the computer is its ability to do infinite variations of color and image processing plus being the ultimate collage machine."

CHALLENGE FOR THE BEGINNER

It isn't easy to be a computer artist, according to Astrahan. There is deep resistance to computer art from galleries and museums. Only in the last year has she noticed computer art being taken seriously, and that was mostly in computer magazines. And although most art schools now offer computer art training, those graduates seem to head for the commercial avenue of desktop publishing, which is limiting by its very nature.

Computer artists face other challenges. First and foremost, is money. A fully configured computer system cost \$5,000 (for starters!), while an "traditional" artist could purchase an air compressor and airbrush for around \$1,000.

Not only that, but computer artists have to run just to keep up with the constant evolutions of technology. When Astrahan was taking computer art classes in college, the Amiga was state of the art and Amiga-

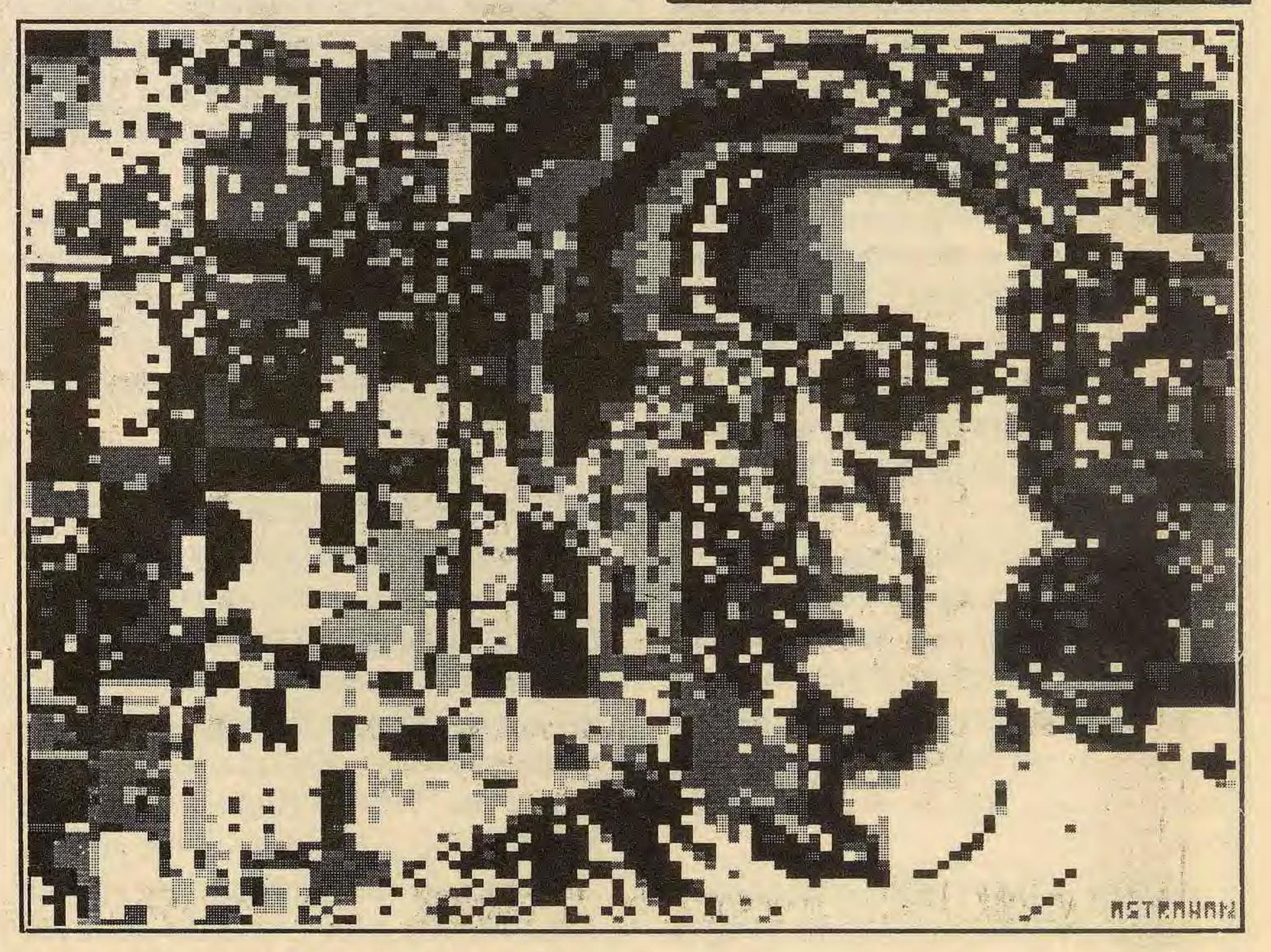
compatible software was the best in its price range. So she chose an Amiga system and has stayed with it. Currently she uses an enhanced Amiga 2000, Digiview scanner, Xerox 4020 and Sharp JX-730 inkjet printers, Polaroid Palette film recorder, and DeluxePaint III, Butcher, Math Vision and TV-Show softwares, creating hard copies as ink-jet prinouts, Cibachromes and editions of color laser copies. Her groundbreaking and innovative work has won her worldwide recogni-· tion — including the Gold Medal for Amiga Graphics at the October 1987 AMI-EXPO.

WHERE CAN WE GO FROM HERE?

"One could spend years doing variations of even one image. I need several lifetimes — one to explore video and animation, one to learn 3D, and one to learn programming," says Astrahan, "The ability of the computer to deconstruct reality and explore alternate universes enmeshed within mathematical space is a continuous delight." In this lifetime, she is working steadily to break down the barriers to public and critical acceptance of computer art. If you're in the New York area before August 9, 1992, you can help breach the wall. Visit her one-person show at the TAI Gallery, 48 W. 21st Street - 4th Floor, New York, NY.(212) 924-8888.

July/August Issue

As you may have noticed, this issue, while labled Volume 1, Number Seven, is dated as August. Because we publish only eleven issues a year, this is our combined July/August issue. It gets us through the summer doldrums while everyone is on vacation. And gives us an opportunity to go on vacation, too!



"Alex in Electronic Mode" — A sample of Ilene Astrahan's Amiga work.

SUBSCRIPTION FORM

Offer expires January 1, 1993

YES! I want 11 issues of Amiga News (monthly except for a combined July/August issue), and save nothing, in fact I want to give you an extra \$1 to have it delivered by mail to my door ☐One Year \$12.40 (Bulk Mail). ☐ One year \$19.97 (First Class Mail). ☐ M/C Exp. date _ ☐ Check enclosed Signature _____ □Bill Me Credit Card # _ Company Name Address_ State_ Canada & Mexico add US\$5, all other foreign add US\$10. All foreign US Funds drawn on US bank. 1. Which model Amiga do you own? 2. If you own another computer, what is it? Do you use your Amiga for ____ Amiga 500 _____ Amiga 1000 _ Amiga 2000 3. Do you run MSDOS or MAC software on your Business-Personal-Amiga 2500 Amiga Where did you purchase Amiga News?

Dealer

Newsstand ____ Amiga 3000

Amiga News • 145 Grove St. Ext. • Post Office Box 51 • Peterborough, NH 03458 • (603) 924-9455

Amiga News

Subscription Receipt Date Ordered:

Amount Paid:

Keep this handy receipt as a record of your subscription order.

Amiga News 145 Grove St. Ext. P.O. Box 51 Peterborough, NH 03458 (603) 924-9455 Fax (603) 924-9709

Continued from page 2.

tary exchanges worldwide. We had no way of demonstrating the Amiga, so with a lot of cooperation I developed the "Amiga Demo Library." Through our network I provided a listing in which vendors could pick out disks of popular demos which I mailed to them. All of my demonstration disk are PD/Shareware, therefore I only have a nominal charge for my expenses.

I would be willing to offer anyone these same great demos, which inspired so many to purchase their Amigas. Why not work with me to get people to order demos? This is a chance for people not only to speak about their awesome machine, but to also be able to show the power behind the words.

Peter J. Hundt, Beale AFB, CA

ANOTHER COUNTRY HEARD FROM

I picked up your June 1992 issue and read the "Is the Amiga Doomed?" article with some interest. Your assessment of the Amiga is correct. I was not sold on the Amiga by a dealer— my friends were the salesmen.

The problem with Commodore is not necessarily advertising, although that does have something to do with it. Their last media blitz, the "Stevie" ads running or MTV and such, were incredibly bad.

But the ads opened up the real problem: dealerships. Where could you buy one of these nifty little computers? Good question.

You see, Commodore has the wonderful habit of screwing its dealers. Every dealer I've spoken with has had nothing but vitriol for Commodore and the way it treats resellers. There are all kinds of tales, such as the Power-Up deal, costing dealers money, and the shoddy Educational Program.

But the biggest issue comes from Commodore's selling Amigas and 64s/128s en masse to retail outlets like Sears, Caldor

and a variety of toy stores. CBM sold a whole slew of machines and the dealers could farm them out cheap. But this undercut the real Amiga dealers.

Every Amiga dealership I have ever seen has been a single-store operation. These stores just don't have buying power, especially when facing Sears. The result is they closed down or dropped Amigas completely.

Look in your own newspaper and you will see more proof of this. Commodore 'strikes a deal with Merisel, making their first deal with a national distributor. The machine has only been around for seven years now.

What Commodore has to do is get the machine into major, national, resellers with buying power. Superstores like CompUSA or major software dealers like Egghead and Babbages offer massive potential.

This is what the machine needs. However, let's go even deeper. In the past few weeks, I've met top level executives at Lotus and WordPerfect. While talking, I told them what kind of machine I owned. Lotus informed me that they had Amigas in house, and they thought it was a very good machine.

But they let development slide because of a perceived weak marketplace (not too hard to notice). WordPerfect said it lost money on WP 4.1. They also said CBM offered zilch in helping them port these complex programs to the Amiga.

But what do you expect from a company that holds its shareholders' meetings outside the US to avoid angry owners and shareholders who want to lynch the donothings running the company?

Every day I see major news coming off the wires, announcing deals and agreements between major companies. Then there's the Amiga market. CBM and NewTek, the company with the product that can save this machine, are at each other's throats. Now, how in the world can the machine go anywhere when CBM has

Clarifications and Corrections

FLICKER FREE

If you thought that the \$189 price for the Flicker Free Video in last month's review was too good to be true, you're right. Evidently the brownies got into the typesetting equipment (actually, it was brownie crumbs - mf) and we did not catch it until after we went to press. The correct retail price for the Flicker Free Video is \$299.96.

BEARDED WONDER

We extend our apologies to Bearded Wonder Graphics. For the last two months, we have introduced typos into their ads. For the discerning reader, please note that the company is in Brooklyn, New York, not Brookly, as we printed in our May issue. Our June issue accidentally transposed the digits of his telephone number. The correct number for Bearded Wonder Graphics is (718) 998-1767. Barry, please accept our apologies.

PREMIER SOFTWARE

Sharp-eyed readers may also have noticed that there was no address in last month's ad for Premier Software of Redwood City, CA. You may send your orders for his most excellent products to Premier Software, P.O. Box 3782, Redwood City, CA 94064.

Our advertisers are committed to the support of Amiga and Amiga products. Show them that you care. Stop in, call or write. And tell them Amiga News sent you.

relationships with hardware and software developers that ranges from distant to antagonistic?

Rumors abound that Nintendo is looking at acquiring CBM. If Nintendo is as aggressive in seizing mültimedia market share as they were with the home game market, IBM and Apple would be in big trouble. I personally would be optimistic about it.

Andy Patrizio, Stamford, CT

ULTRA HIGH RESOLUTION 35 mm COLOR

SLIDES

from COLOR POSTSCRIPT • 24-BIT IFF HAM · Standard IFF

Over 4000-line Resolution • NO Scanlines NO Curvature Distortion - Brilliant Color

Call or Write for order form, price list & sample: HAMMOND PHOTOGRAPHIC SERVICES 11280 Washington Place, Culver City, California 90230 . (310) 390-3010

OH, BOY, A FAN LETTER!

Your paper is the BEST of Amiga, the media! Better news, wider range of reviews, great ads from small exotic suppliers. Your mission to save Amiga reminds me of Wayne's (CD Review) mission to save independent music publishers. Great!

Pat Palmer, San Diego, CA



Amiga News' Headline Stirs Controversy

Our headline from last issue, "Is the Amiga Doomed?" provoked a firestorm of commentary that reached from the average user, to dealers, software producers and even the upper levels of Commodore management. The opinions were as diverse as those who held them.

Two dealers from Florida refused to place the newspaper out on the counter. To

them the negative message spelled out in the headline was more than they wished to subject their customers and potential new customers to.

Reader response on the telephone ranged from "Right on!" to "Have you guys lost your minds?"

Finally, with this issue already at the press, we recieved a call from the ivory

towers of Commodore. From no less a person than Jeff Stilley, Executive Vice President of Sales for Commodore USA. This earnest and soft spoken person impressed me with his concern over "negative press" and when invited to comment on a wide range of subjects related to the corporate point of view, indicated he would be delighted. So we'll be hearing more

from the inside in upcoming issues.

When asked if he had any message for the Amiga community in behalf of Commodore, Jeff wanted all you readers to know that "The Amiga is alive and well."

At a minimum, we know they're reading Amiga News, so keep the letters coming.

The Ultimate Amiga Verbious .0 Hard Disk Backup Utility

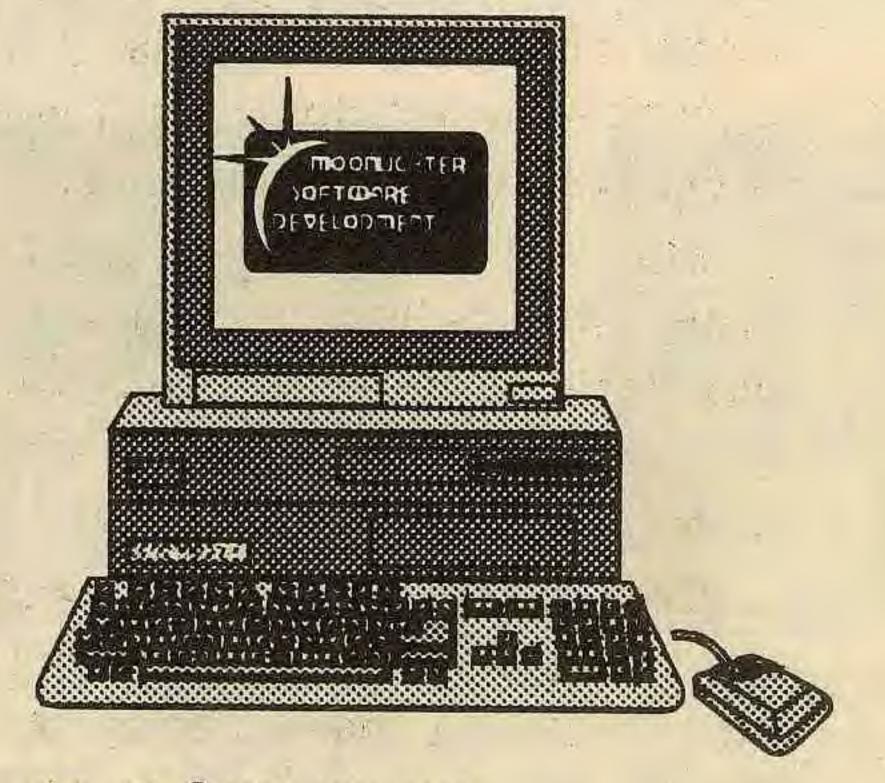
Ami-Back is the solution of choice for all your data backup needs. Designed to be both powerful and flexible, Ami-Back gives you complete control over the backup process. There is no other backup program for the Amiga that can even come close to offering the features, ease of use, and reliability of Ami-Back.

- The fastest hard disk backup program for the Amiga
- "911-Recovery"™ mode recovers lost data without the need for disk utility programs
- Backs up to floppies, hd floppies, hard drives, and SCSI tape drives and DAT drives.
- Backs up to a single AmigaDOS file or device
- Appends multiple backups to a single tape
- Compresses data to backup with no speed loss
- Includes a graphical scheduler for unattended backups
- Has Online Help just a mouse button click away
- Allows password protection of valuable data
- Supports AREXX
- Includes many more features



Tape Drive Offer!

This is an internal SCSI interface streaming cartridge tape drive with 250 megabytes of storage capacity. Data transfers at rates over 5 mb per minute. The ABT-250 kit is bundled with the Ami-Back backup utility and one tape for \$539.95 (without Ami-Back for only \$489.95. An external drive kit is available for an additional \$120.00)



Copyright 1990, 1991, 1992
Moonlighter Software Development, Inc.
3208-C E. Colonial Drive, Suite 204
Orlando, Florida 32803
Phone: (407) 384-9484 FAX: (407) 384-9391

Programs & Programmers wanted — Write Us.

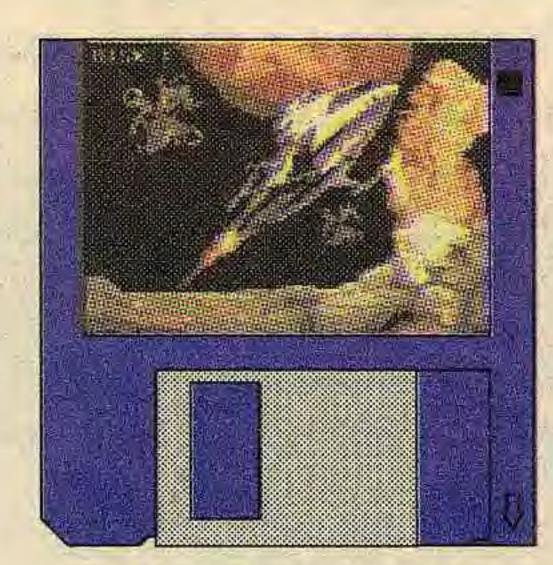
PUBLIC DOMAIN LIKE YOU'VE NEVER SEEN...



1) WORKBENCH 2.0 UTILITIES Over 20 Programs, Utilities, Tools. Single Disk \$4.00



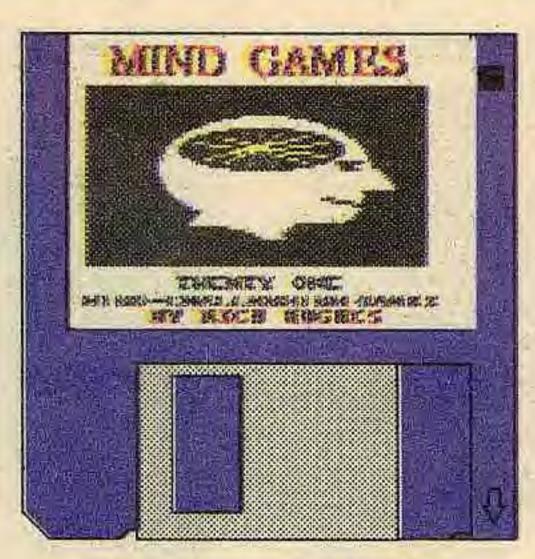
2) STAR TREK THE GAMES! Top Three Star Trek Game Set. 7 Disks Set \$17.50



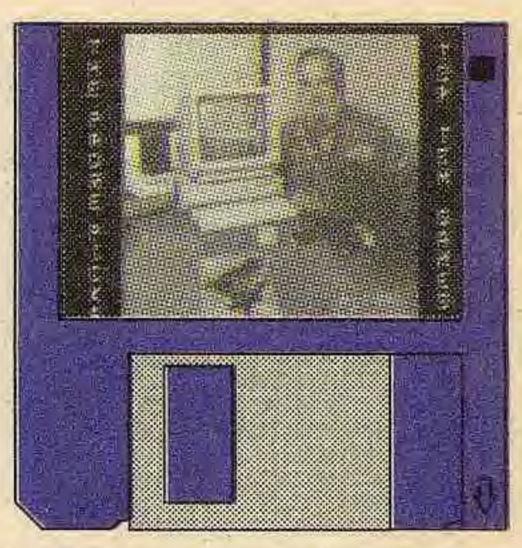
3) "ODYSSEY" #1 PAL EURO DEMO Star Wars Movie! Runs 45min., Get It! 5 Disk Set \$17.50



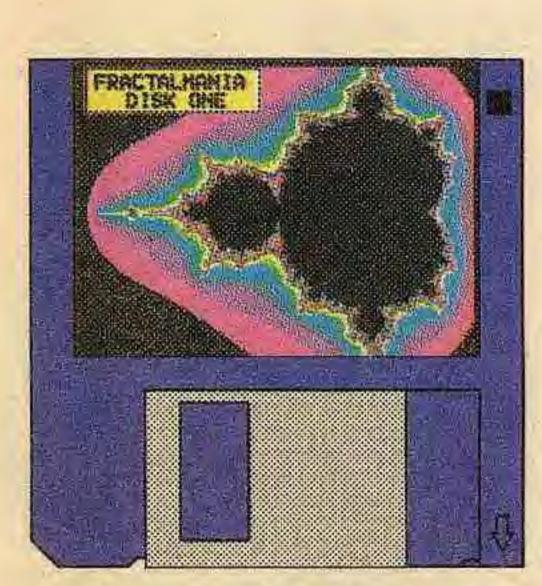
4) VDEO TOASTER PD UTILITIES 22 Directories; Prgs., Lightwave-Objects. 6 Disk Set \$21.00



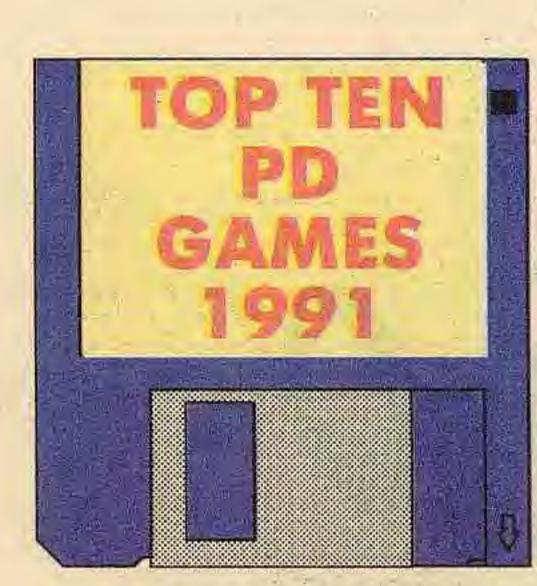
5) MIND GAMES Contains 21 count'em, brain teasers for young and old. Think and grow rich. Single Disk \$4.00



6) JAY MINER PICKS The "Padre" picks the Best Games: Poing, TinyBall, and Hearts, more. Single Disk \$4.00



7) FRACTALMANIA Fractals are sets of infinite detail. 12 fractal programs. 3 Disk Set \$10.50



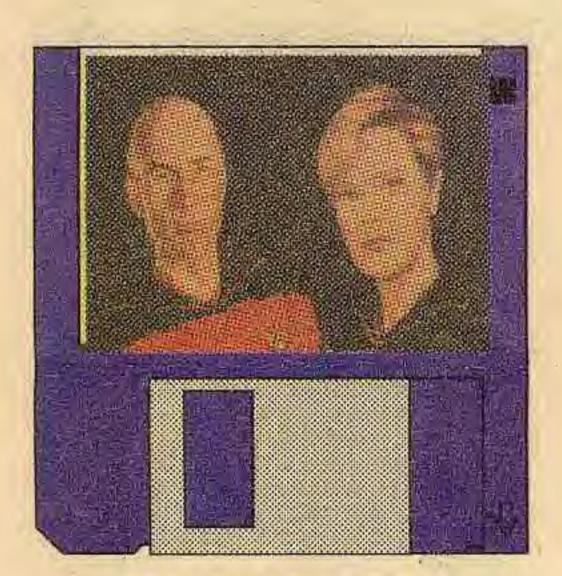
8) TOP TEN GAMES OF 1991 Amiga World top PD games of 1991. 6 Disk Set **\$15.00



9) PATRICK NAGEL SLIDESHOW Classic Art by Mr. Nagek. Great!! 2 Disk Set \$7.00



10) BON APPETIT Buy this for wife, Database and 600 recipies for dinning. 2 Disk Set \$7.00



11) STAR TREK "THE NEXT GENERATION" Trivia Challenge Season I and II. 5 Disk Set \$17.50



12) VIRUS KILLERS The Top Virus Prgs., VirusChecker, VirusX, LVD, and extra programs / utilities.
Single Disk \$4.00

Commodore '92 Summer Special's

The 24 Best Sellers

AmigaExpo '92

\$4.00 No Min. Single Disk MultiDisk Set \$3.50 Each Disk Fish Disks (1-690) \$2.00 Each Please add \$3.00 for Shipping/Handling.

Call Roy for AMIGA HELP daily

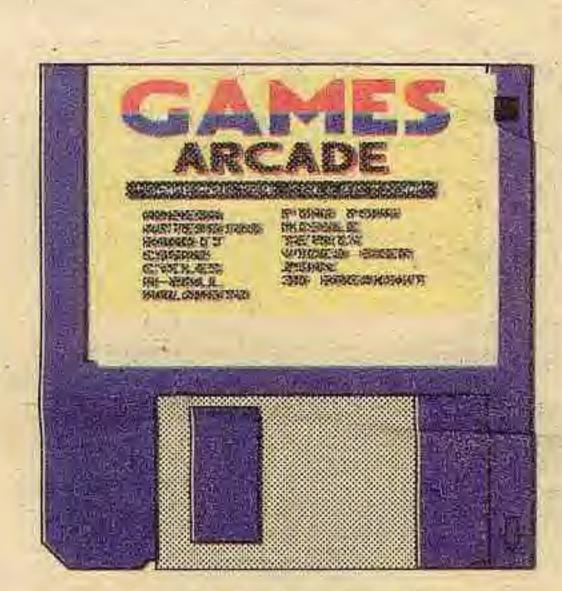
until 10 p.m. We will help answer any

question about Amiga PD & Shareware.

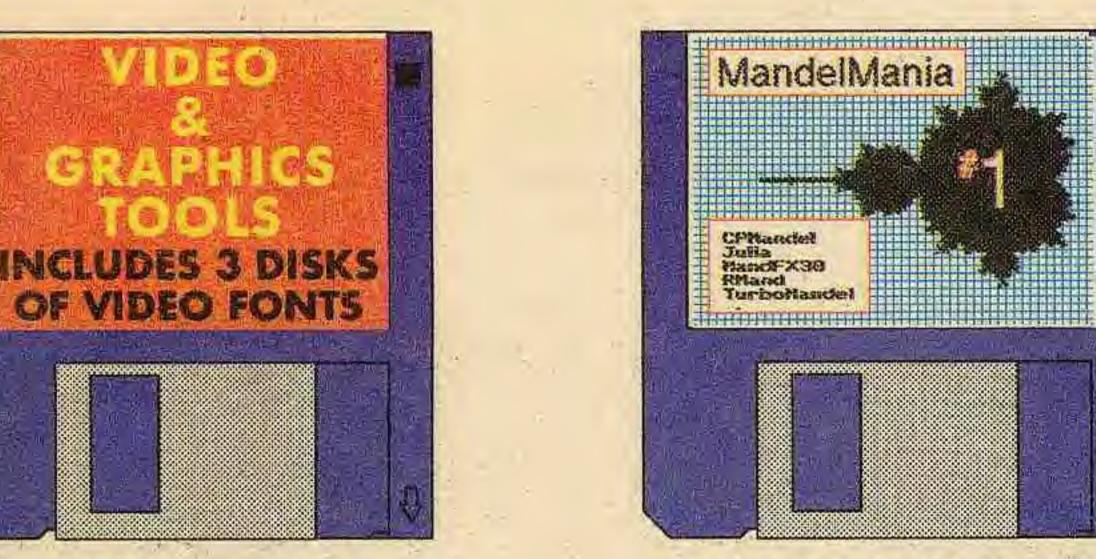
Premier Catlog Disk \$3.00 no S/H.



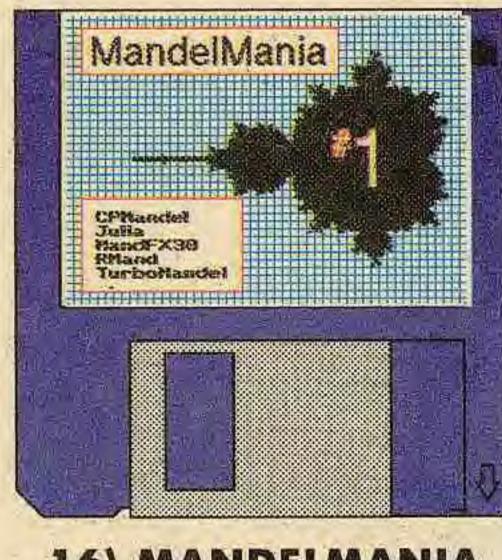
13) electricWORD "The BIBLE" A canDo program of the BIBLE, with quizz. 3 Disk Set \$10.50



14) GAMENMASTER COLLECTION Over 70 of the Best AMIGA PD Games!! 7 Disk Set \$21.00



15) VIDEO & GRAPHIC TOOLS Top Video PD & three disks of Video Fonts 6 Disk Set \$21.00



16) MANDELMANIA SERIES A Great Set of the Best Mandelbrot Prgs.2 Disk Set \$7.00

All disks verified & 100% VIRUS FREE. Tel: (415) 593-1207 Fax: (415) 637-0400

P.O. Box 3782 Redwood City, CA 94064





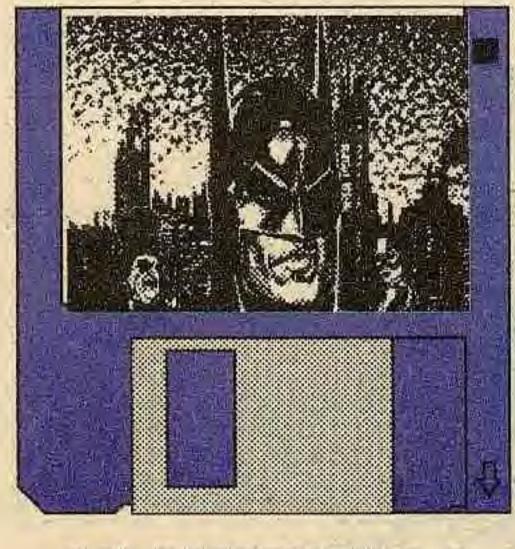
17) ANIMATION "THE MOVIES" 16 of the Best animations, 1 meg. 5 Disk Set \$17.50



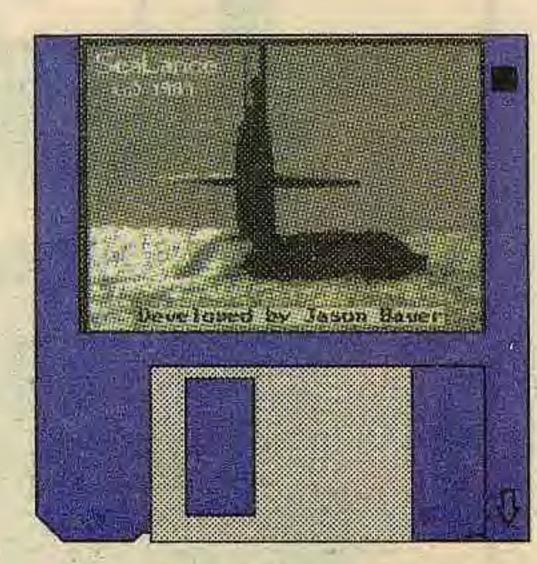
18) LEARN & PLAY Math, Spelling, Games, and a talking coloring book. 3 Disk Set \$10.50



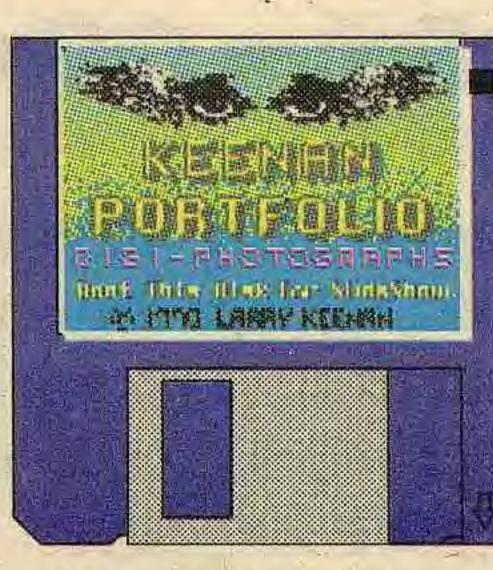
19) AMIGA CLIPART DTP Clipart, Office, Church, and School. With an index. 4 Disk Set \$14.00



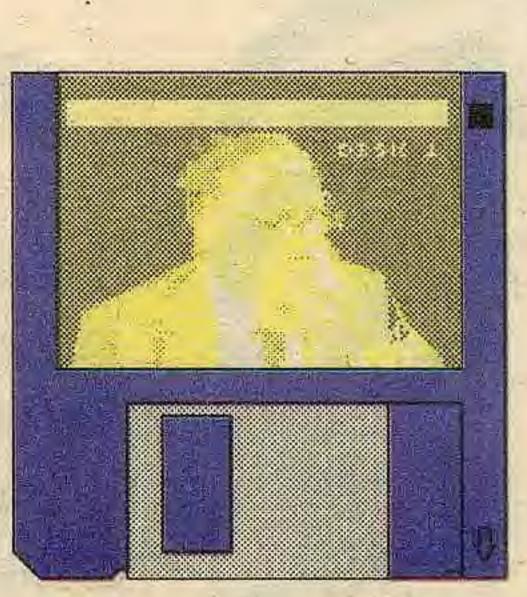
20) BATBENCH 1.3 This is a 1.3 Workbench Disk that Batman customized. Single Disk \$4.00



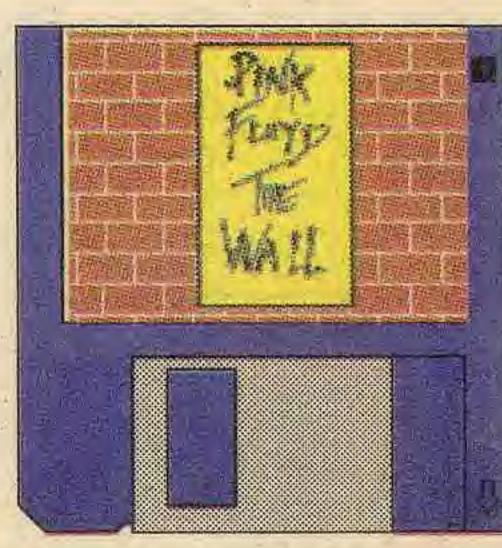
21) PREMIER GAMES Games, More Games, Still More Games, and Sealance. 4 Disk Set \$10.00



22) LARRY KEENAN PORTFOLIO DISKS Portfolio & 3D Art Disk, with glasses. 2 Disk Set \$8.00



23) JAY MINER PICKS MODULES the "Padre" picks music modules. 2 Disk Set \$7.00



24) PINK FLOYD "THE WALL" Euro Demo by Split Dimensions. 6 Disk Set \$18.00